

M0450078
Task ID #3370
cc: Leslie

DESERT HAWK GOLD CORPORATION
KIEWIT PROJECT
NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS

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FEB 02 2010

DIV. OF OIL, GAS & MINING

JANUARY, 2010
SUBMITTED BY:
NORTH AMERICAN EXPLORATION, INC.
447 NORTH 300 WEST, SUITE #3
KAYSVILLE, UTAH 84037
(801)544-3421

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Notice of Intention to
Commence Large Mining Operations

Desert Hawk Gold Corporation
8921 North Indian Trail, Suite #288
Spokane, WA 99208

Kiewit Project
Tooele County, Utah

JANUARY 2010

Submitted by:
North American Exploration, Inc.
447 North 300 West, Suite #3
Kaysville, UT 84037
(801) 544-3421

oigatten@nae-xploration.com

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INTRODUCTION

The Kiewit Project is located in the extreme western part of Utah in Tooele County near the site of Gold Hill (Figure 1). This project will exploit the Kiewit, Yellow Hammer and Clifton Shears deposits. The project will consist of three (3) surface mines, two of which will provide oxidized gold/silver ores to be processed at the Kiewit cyanide heap leach pad (Figure 2). These operations are to be included within a permit boundary which encloses about three square miles (Figure 2). Copper ore from the Yellow Hammer Mine will be hauled off site to the Cactus Mill near Gold Hill, which operates under a separate Large Mine Permit (M/045/0049). Due to the timing of the start-up of these two separate operations, the heap leach operation at the Cactus Mill was submitted to DOGM as a separate permit.

Processing facilities for ore from the Kiewit and Clifton Shears Mines will be located near the Clifton Pit Shears Mine, within the permit area. This will be a cyanide leach operation for gold and silver recovery. Two (2) permitted small mine operations are being incorporated into this Large Mine Permit application. These operations are the Herat Mine (S/045/0023) (Clifton Shears deposit) and the Yellow Hammer Mine Permit (S/045/0076).

Projected annual ore production from the three mines in this permit area will be about one million tons per year at the Kiewit Mine, 50,000 tons per year from the Clifton Shears Mine and 100,000 tons per year at the Yellow Hammer Mine.

A cyanide heap leach pad will be constructed to process gold and silver ore mined from the Kiewit and Clifton Shears deposits. The pad/process area will be about 825,000 square feet, 19.5 acres in size. An 80 mil HDPE plastic liner will be placed beneath the pad/process area to prevent any leakage of the process solutions to the outside environment, and a Storm Water Management Plan will be implemented.

The Kiewit mine is located on Federal land administered by the US Bureau of Land Management. The Yellow Hammer Mine, Clifton Shears Mine and the Kiewit leach pad and processing facilities will be located on private land. A total of 92 acres of land are projected to be disturbed by this project (52 acres of private land and 40 acres of Federal land).

R647-4-101 Filing Requirements and Review Procedures

This Notice of Intention (NOI) is submitted on behalf of Desert Hawk Gold Corp. (DHG) by North American Exploration, Inc. (NAE) in compliance with part R647-4 of the Utah Minerals Reclamation Program.

The proposed Kiewit Project is located in Tooele County, Utah, on Federal lands and private lands leased to Desert Hawk Gold Corporation (DHG) by the Clifton Mining Company.

The proposed project is located in parts of sections 19 & 30, T8S-R17W and sections 24 & 25, T8S-R18W, Tooele County, Utah.

R647-4-102 Duration of the Notice of Intention

It is understood that, when approved, this NOI, including any subsequently approved amendments or revisions, remains in effect for the life of the mine and process facilities, subject to DHG following the terms and conditions as outlined in the approved Large Mine Permit.

R647-4-103 Notice of Intention to Begin Mining Operations

The DHG NOI for the Kiewit Project addresses the requirements of the rules listed under Utah Reclaimed Mine Act 647-4 rules as follows:

- 104. Operator(s), Surface and Mineral Owners
- 105. Maps, Drawings and Photographs
- 106. Operation Plan
- 107. Operation Practices
- 108. Hole Plugging Requirements
- 109. Impact Assessment
- 110. Reclamation Plan
- 111. Variance
- 113. Surety

I R647-4-104 Operator, Surface and Mineral Owners

1. Name of Mine: **KIEWIT PROJECT**
2. **Legal name of entity applying for this permit:**

Deseret Hawk Gold Corporation
8921 North Indian Trail Road, Suite #288
Spokane, WA 99208
(509) 467-8204
Fax: (509) 468-1937
Email: Bjorg53@yahoo.com

Type of Business: Corporation

Utah Business Entity Number: 7378396-0143

Local Business License No.: Not required (as per Patricia Weber, Tooele County Clerk's Office)

Registered Utah Agent:

Ronald N. Vance
1658 Reunion Ave., Suite 250
South Jordan, UT 84095
(801) 446-8802
Fax: (801) 446-8803
Email: ron@vancelaw.us

3. **Permanent Address:**

Deseret Hawk Gold Corporation
8921 North Indian Trail Road, Suite #288
Spokane, WA 99208
(509) 467-8204
Fax: (509) 468-1937
Email: Bjorg53@yahoo.com

4. **Contact Person for Permitting, Surety, Notices:**

Rick Havenstrite, President
1290 Holcomb Ave.
Reno, NV 89502
(775) 322-4621
Fax: 322-6867
Emergency Phone (775) 848-5193
rickh@odcnv.com

5. Location of Operation:

Tooele County

Permit Area

All Section 19, N ½ Section 30 of T8S-R17W

All Section 24, N ½ Section 25 of T8S-R18W

Kiewit Operation (mine and leach pad)

SW ¼ NE ¼, SE ¼ NE ¼, NW ¼ SE ¼, NE ¼ SE ¼, and SW ¼ SW ¼ and
SE ¼, SE ¼ of Section 19 of T8S- R17W.

NE ¼ NW ¼ of Section 30 of T8S - R17W.

Clifton Shears Mine

NW ¼ NW ¼ of Section 30 of T8S- R17W.

NE ¼ NE ¼ and SE ¼ NE ¼ of Section 25 of T8S - R18W.

Yellow Hammer Mine

NE ¼ NW ¼ and SE ¼ NW ¼ of Section 24 of T8S - R18W.

6. Ownership of Land Surface:

Clifton Mining Company
80 West Canyon Creek Road
Alpine, UT 84004
(801) 756-1000

and

Moeller Family Trust
80 West Canyon Creek Road
Alpine, UT 84004
(801) 756-1000

Bureau of Land Management
2370 south 2300 West
Salt Lake City, UT 84102

7. Owners of Record of Minerals to be Mined:

Clifton Mining Company
80 West Canyon Creek Road
Alpine, UT 84004
(801) 756-1000

and

Moeller Family Trust
80 West Canyon Creek Road
Alpine, UT 84004
(801) 756-1000

Bureau of Land Management
2370 south 2300 West
Salt Lake City, UT 84102

8. BLM Lease or Project File Numbers:

BLM Claim Numbers – Kiewit Mine – UMC317915 (Claim IP-18) to UMC 317919
(Claim IP-21); UMC 317949 (Claim IP-54)

9. Adjacent Land Owners:

Bureau of Land Management
2370 South 2300 West
Salt Lake City, UT 84102

10. Have the Land, Mineral, and Adjacent owners been notified in Writing? Yes

11. Does Permittee/Operator have a legal right to enter and conduct mining operations on the land covered by this notice? Yes

II R647-4-105 Maps, Drawings, and Photographs

105.1 Base Maps:

Figure 1 -- Index Map

General location of the project area.

Figure 2 -- Location Map

Mine areas and surroundings. Access to a county road maintained by Tooele County and the nearest highway which is US Highway 93A leading to either Wendover, Utah or Ely Nevada. Streams, springs, water bodies, roads, buildings, topography and areas that have been previously impacted by mining and exploration are shown. Scale of 1"=2000'

There are no perennial springs or streams, buildings, landing strips, electrical transmission lines, water wells, oil and gas pipelines, existing wells, boreholes, or other existing surface or sub-surface facilities with 500 feet of the proposed mine and process facilities.

There is a 5' x 5' x 30 foot deep abandoned mine decline at the old Clifton Town site (Figures 2 and 5) related to subsurface alluvial water collection as detailed in the "Operations Plan". Existing access roads are shown which are sufficient to support the proposed operation with some routine maintenance.

Dumont Nickel conducted an extensive exploration program in the pit area in 2004-2006, all of which was properly reclaimed. There is about 0.5 acres of disturbance in the Clifton area from previous testing. The disturbed area will be within a small area to be mined near Clifton, located about 1500 feet southeast from the proposed heap leach pad. This is presently included within the active Herat Small Mine Permit S/045/023. The Yellow Hammer Mine is presently covered by the active Small Mine Permit S/045/0076 which is permitted for 5.0 acres. A drilling program has just been completed in this site, and there is an existing open pit covering about 3.3 acres of disturbed land.

Figure 3 -- Surface Ownership --

Property boundaries & surface ownership of the project area and adjacent lands.
Scale 1"=1000'

Figure 3-A -- Mineral Ownership --

Mining claims and property boundaries of the project area and adjacent lands.
Scale 1" = 1000'

Figure 4 -- Surface Geology

Surface geology and cross section scale about 1" = 2800'

105.2 Surface Facilities Maps:

Figure 5 --Proposed Surface Facilities

Map shows the proposed mine and process areas, existing dirt roads, and water drainages that pass through or near the lands to be affected.
Scale 1"= 1000'

Figures 6 and 7 --Kiewit Mine Pre-Mine Topography and Final Pit Topography

Scale 1"=200'

Figures 8 and 9 --Clifton Shears Mine Pre-Mine Topography and Final Pit Area

Scale 1" = 200'

Figures 10 and 11 --Yellow Hammer Pre-Mine Topography and Final Pit Topography

Scale 1" -- 200'

These maps also show the topsoil storage areas and overburden storage areas. No waste water is generated in the mines, therefore no discharge areas are shown. Storm water is held against the high wall in the pits, which are shown on the map.

Figures 12 and 12A --Process Facilities -- General Layout and Detail

Pad and process pond & detail of the facilities related to the processing of solutions received from the leach pad.

Figures 13, 14, 15 16 and 17 --Proposed Heap Leach Pad

These maps show pre-construction topography, fence & liner of the heap leach pad.

Scale 1"=200'

Figure 18 -- General Sediment Pond Layout

Not to scale.

105.3 Reclamation Treatments:

Figure 19 --Reclamation Treatments Map

Final reclamation treatments of the areas that have been disturbed and covered by reclamation surety.

Appendix XI -- Storm Water Management Plan --Final drainage configuration as part of a comprehensive erosion control effort within the limits of the mine permit

boundary. Figure SWP-1, scale 1" = 3000'; SWP-2, scale 1" = 2000'; SWP-3, scale 1" = 500'

Photographs of the Kiewit Project Area are included as Appendix 1.

III R647-4-106 Operation Plan

Preface:

An Environmental Assessment that included the area of the Kiewit Project was completed four years ago by Dumont Nickel as part of a joint venture with Clifton Mining. We are in the process of obtaining this Assessment from the US Bureau of Land Management.

106.1 -Type of minerals to be mined:

The Kiewit Project will produce gold, silver, copper and other associated base metals.

106.2 -Type of Operation to be Conducted:

General

The operation will consist of three (3) open pit mines and a cyanide heap leach pad. Mining, crushing and haulage operations will be performed by an outside contractor. The ores mined from these surface mines are completely oxidized and highly fractured granodiorite (or quartz monzonite). There is essentially no sulfur (or sulfides) remaining in the granodiorite to result in any type of acid generation. Therefore Acid Rock Drainage (ARD) will not be a problem at this mine site. A complete analysis of the ore is attached.

The Kiewit Mine ore body lies about 2000 feet northeast from the proposed Kiewit cyanide leach pad. The gold/silver ore will be crushed, hauled to the process area and placed on the cyanide leach pad.

The Clifton Shears Mine is located only 1500 feet southwest of the proposed Kiewit cyanide heap leach pad. Silver ore will be mined in small pits and placed on the pad.

The Yellow Hammer Mine is located about 1 mile northwest of the Kiewit Mine in the northern part of Section 24, T8S-R18W, Copper and gold ores will be mined and hauled about five (5) miles to the Cactus Mill Large Mine Operation (M0450049) where it will be crushed and placed on the leach pad.

Mining Operations:

The Operation will consist of three surface mines. The Kiewit and Yellow Hammer ore bodies will be drilled and blasted and mined with a loader in benches of 10-20-foot height. Ore is then stockpiled on the edge of the pits until hauled by a contractor to the crusher area.

The Clifton Shears Mine consists of several small high-grade deposits of silver which occur in near-vertical veins that are about five feet wide. A track hoe will set up on the

veins, mine the material to a maximum depth of about 25 feet and retreat away from the face. There will be very little waste which will be taken to the Kiewit pit to help backfill the mine benches.

Crushing Operation Practices

The ore will be processed by a contractor using portable crushing and screening equipment to the point where more than 90% of the material will pass through a Tyler 8 mesh screen. The ore will then be placed on the heap leach pad in "lifts" 15 to 20 feet high.

Blasting Protocol:

Blasting will be used during the mining process at the Kiewit Project. Blasting will be conducted by Desert Hawk Gold's mining contractor who will be qualified and trained in blasting design and practice.

The contractor will conduct blasting on an as needed basis. Typical blasting rounds will include down-hole primers, detonator cord, and Ammonium Nitrate-Fuel Oil (ANFO) pellets. Blast hole load factors and pattern design will be dictated by the material being encountered at the time of the blast.

Before blasting occurs, the blast foreman will sound a warning siren to alert all personnel of an impending blast; at which time all personnel and equipment will be removed from the blast zone. The foreman and aides will insure that all personnel have left the pit area, at which time all access roads into the pit will be blocked. After five minutes time, two siren blasts, each one minute long, will be sounded. After an additional minute the blast foreman turns on his emergency flashing lights, sounds another three siren warnings, each thirty seconds long, and then the blast will be detonated. No one enters the blast zone until the foreman checks the blast site and sounds the all-clear siren which will be one long siren blast. This protocol will be posted on access roads to the site to inform all visitors as to the blasting practices being utilized at the mine.

Pad Design and Construction:

The Kiewit leach pad will be approximately 810,000 square feet (about 19.0 acres) and the process area will be about 20,000 square feet (0.5 acres) in size. A continuous liner of 80 mil HDPE plastic will be placed under both the pad and process area. The liner will be installed by an independent and licensed contractor. An independent engineering company will conduct QA/QC assurance testing as is standard in the industry. The sub-base will be silt compacted to 95% on the Modified Proctor (ASTM1557).

A berm, a minimum of three (3) feet high, will surround the pad, the area of the solution containment pond and the process area. The plastic liner will be anchored to the berm in a trench along the inside edge of the pad. The trench will be a minimum depth of one (1) foot.

A four foot layer of 1" minus crushed material, decomposed granodiorite, will be placed over the pad for protection of the plastic liner. Thereafter, based on conditions found during mining, either run of mine or crushed ore (-1" in size) will be placed on the pad in 10 to 20 foot lifts. Overall side slopes of 2h:1v will be maintained. The ultimate height of the pad will be no more than 120 feet.

A system will be put in place to insure no major leaks of process solutions occur. A 4" slotted ADS down gradient side of the pad area and will then be changed to HDPE pipe. This pipe would then connect to a 12" pipe which will be laid along the earthen berm outside the pad. This pipe would then be connected to a drop box located at the northeastern end of the pad area.

Pond Design and Construction:

The pond is designed as simply a down gradient containment of process solutions from the pad. The maximum height of the pond wall on the downstream side will be 19'. This is to contain the solutions at maximum depth of 16 feet and allow three feet of free board. The pond will be lined (as is the pad) with 80 mil HDPE plastic installed and tested by independent contractors. The underlying soils will be compacted to 95% on the Modified Proctor ASTM 1557.

The pond will be built to be used as a holding area to contain pregnant solution flows from the pad prior to pumping these solutions through the carbon columns. Any exposed cyanide solutions in the pond area will be covered with bird netting, if needed.

The process operation parameters for the pond will be the following:

- 1) The process pond will be operated at a level of approximately 100,000 gallons. The ore requires approximately 8% pore volume to achieve saturation. Depending on the make-up of the material on the pad as much as 100,000 gallons of water will be applied to the pad daily until break-out solutions are observed.
- 2) Maximum process water flows at the plant will be 1500 gallons per minute. The pond has been designed to contain the pad flow for a period of 48 hours, and water from a 48 hour 100 year storm simultaneous event, in addition to the 100,000 gallon working volume. Three feet of freeboard will be maintained above this level of flow. An extra generator and back-up barren solution pump will be maintained at all times to insure that there will not be any solution loss during any type of upset event.

The pond will have a capacity of:

1) Working volume	100,000 gallons
2) 24 hour-10 year event (810,000 square feet x 1.3 in)	660,000 gallons
3) 48 hour shut down (1500 gpm x 48 hours)	<u>4,320,000 gallons</u>
Total	5,080,000 gallons

The pond capacity is estimated at 6,240,000 gallons. The surface area of the pond is about or 61,000 square feet, with a containment level of 16 feet. Pond freeboard will be three feet above this containment level.

A complete description of each part of the operation follows along with narrative and design drawings for the leach pad, pond and the process facilities.

Process Facility and Operation:

The entire process facility located at the Kiewit Project site will be underlain with an 80 mil HDPE plastic that is continuously welded to the plastic under the pond and pad (Appendix VI). Overlying the plastic in the process area will be 24" of select decomposed granodiorite fill. The process area will be sloped at ~1% towards the pond and process area which will be fully bermed along the outer edges. This will prevent any spillage from an upset condition from discharging, and direct any process solutions back to the pond. All process tanks and pumps located in the process area will be mounted on concrete bases.

Process solutions applied to the heap material will contain no more than ½ pound per ton cyanide at an average pH of 11.0. Depending on the quantity of the water developed at the site, either wobblers (sprinklers) or drip emitters will be used for solution application. An application rate of .003 to .005 gallons per square foot/per minute will be maintained depending on the porosity of the material placed on the site. Maximum design barren solution flow rates will be ~1500 gallons per minute. At this maximum flow, two (2) 20 hp centrifugal pumps will feed barren solutions to the pad.

A 20 hp centrifugal pump will feed a vertical four (4) stage carbon column at a maximum rate of 1500 gpm. Flow to the column may vary as long as the flow keeps the carbon beds expanded. Each stage of the carbon column will contain approximately 4000 pounds of granulated 6 x 20 activated carbon. Carbon will be moved counter-current from stage to stage with a specially designed fish pump. Loaded carbon from the lead stage will be shipped for refining at the already permitted Cactus Mill process facility or to another outside facility.

Barren solutions from the carbon column will flow by gravity to a 4000 gallon surge tank. Pumps located in this area will pump solutions from the tank to areas of the heap. Due to the slope of the process area, any overflow from this tank will report to the pond.

Hydrated lime will be used for pH adjustment of the cyanide solution. Cyanide will be trucked in liquid form to a 12,000 gallon tank which is located within the main process containment area. This tank will have a 110% containment structure and be fenced with a 6' high chain link fence which will be placarded with warning signs. Cyanide will be moved from the tank with a metering pump and will then flow by gravity to the barren solution surge tank.

Concurrent Reclamation

The only concurrent reclamation activities planned within the permit area at this time will be the backfilling with waste material of excavated areas within the Clifton Shears Mine. This reclamation is discussed in Section 110 below.

106.3 Estimated Acreage

Approximately 96.5 acres will be disturbed by the mine and heap leach operation. This figure includes all access roads, storage piles, process areas, mine areas and other affected areas.

	<u>Private</u>	<u>Federal</u>	<u>Total</u>
Kiewit Pit		15.0 acres	15.0 acres
Kiewit Waste Dumps		15.0 acres	15.0 acres
Haul Road	6.5 acres	1.0 acres	7.5 acres
Clifton Shears Pits	5.0 acres		5.0 acres
Yellow Hammer Pit	7.5 acres		7.5 acres
Yellow Hammer B & C Zones	1.5 acres		1.5 acres
Yellow Hammer Waste Dumps	2.0 acres		2.0 acres
Storm Water Diversions and Berms	1.0 acre	4.0 acre	5.0 acres
Containment Pond		4.5	4.5 acres
Heap Leach Pad and Process Facility	19.5 acres		19.5 acres
Access Roads	1.0 acre	1.0 acre	2.0 acres
Crusher Site& Equipment Stage	5.0 acres		5.0 acres
Upper Topsoil Stockpile	4.0 acres	4.0 acres	
Lower Topsoil Stockpile	3.0 acres		3.0 acres
Total	52.0 acres	44.5 acres	96.5 acres

106.4 Nature of Material, Including Waste Rock/Overburden, and Estimated Tonnage:

Kiewit Deposit	5000 tons of ore per day, 200 days =1 million tons/year, total about 2,000,000 tons 7,500 tons of waste per day, 200 days = 1,500,000 tons/year, total about 6,000,000 tons
Clifton Shear Deposits	5,000 tons of ore per year, total 50,000 tons 5000 tons of backfilled waste per year total 10,000 tons Concurrent backfilling of excavated ore deposits
Yellow Hammer Deposit	100,000 tons of ore per year, total 200,000 tons 100,000 tons of waste per year, total 200,000 tons

All ore and waste is completely oxidized, igneous rock known as granodiorite (also called quartz monzonite) or stock work quartz veining. Sulfide content in the material mined is nil. Rock containing sulfides, if encountered, will not be placed on the heap as sulfides will consume active cyanide, and therefore the metals cannot be recovered using a cyanide leach process.

Historic Mining and Disturbance Area Summary

There has been a substantial amount of surface mining and exploration drilling within the Kiewit Project permit boundary by multiple companies over a long period of time. Some of these impacted areas are shown on Figures 2 and 5, but because much of the history of these exploration activities is not readily available, their exact locations cannot be shown or summarized. Previous disturbances within the Kiewit Mine Permit application area that are not included in the mining plan will be documented as encountered.

106.5 Existing Soil Types

A report on the soils in the immediate area of the Kiewit Project titled "Custom Soil Resource Report for Tooele Area, Utah – Tooele, County and Parts of Box Elder, Davis and Juab Counties" is attached as Appendix 7. This report describes soils in general but includes a detail map of the Permit area at a scale of 1:12,000. In addition, soil samples were collected at the Yellow Hammer Mine (YH-1), Clifton Shears Mine (CS-1), Kiewit Mine (KM-1) and the pad area (KP-1). Analyses of these samples were performed by Utah State University and are included in Appendix IX.

The detailed map shows the area including the Kiewit Mine and the Clifton Shears Mine to be underlain by a soil mapped as "Amtoft – Rock outcrop complex" with 30% to 70% slopes. This soil unit is further described as consisting of about 65% soil and 15% rock outcrop. The parent material is colluvium derived from limestone and/or weathered limestone. Characteristics and qualities include 1) scattered cobbles and boulders, 2) excessively drained, 3) frequency of flooding: none, 4) frequency of ponding: none, and 5) high calcium carbonate content.

The area of the Yellow Hammer Mine is underlain by soil mapped as Rywat-Broad-Rock outcrop association with 30% - 60% slopes. This soil is described as cobbly to very gravelly loam that can be up to 20 to 40 inches thick above bedrock. Characteristics include 1) well drained, 2) moderately low to moderately high capacity to transmit water, 3) frequency of flooding: none 4) frequency of ponding: none and moderate calcium carbonate content (up to 30%).

The area of the leach pad and process facilities is mapped as Hiko Peak gravelly loam with 2% - 15% slopes. This unit is described as a loam that is derived from mixed alluvium and can be up to 80 inches thick above bedrock. Characteristics include 1) well drained, 2) high capacity to transmit water, 3) frequency of flooding: none, 4) frequency of ponding: none and moderate calcium carbonate content (up to 40%).

The pad, process and haul roads all occur near Rodenhouse Wash which has a 10-30 foot deep layer of decomposed granodiorite which contains about 30% sand by volume. These areas will have the top 4" of plant growth material removed and stockpiled just to the east of the heap pad area. The stockpile will be surrounded with berms and kept from upstream surface erosion.

The Kiewit and Clifton pits ore and waste are composed of oxidized and fractured granodiorite rock. Near surface, the highly oxidized rock readily breaks down into pebbles and sand. Very little soil exists here, though past reclamation efforts on reclaimed mine roads have been fairly successful. Two plant growth material areas have been sited – one to the north and one to the south of the Kiewit pit. Only an inch or two of soil will be recoverable, though the natural weathered rock will likely be of similar value as a plant growth material. Plant growth material from the Clifton, Kiewit and Yellow Hammer pits and waste dump areas will be stockpiled adjacent to the pit and waste dumps. Proposed stockpile areas are shown on Figures 6, 7, 8, 9, 10 & 11.

106.6 Plans for Protecting and Re-depositing Soils

The soils are all very high in sand content with virtually no silt or clay. The area is extremely arid with annual precipitation of about 8" and 48 hour 100 year events of only 2" of precipitation. Plant growth material will be stockpiled with dozers and scrapers in the pad/process and haul road area and by dozer in the pit area. The plant growth medium stockpiles will be kept out of any drainage and surrounded downslope with berms. Photographs of the areas are included in Appendix IX.

106.7 Existing Vegetation

Surveys were done by Desert Hawk personnel to estimate the type of plants and the amount of vegetative cover in the Kiewit project area. The areas surveyed are as follows:

Pad, haul road, process area - There are approximately 100 scattered pinion pine and juniper trees in the heap leach area. Vegetation within the 50% - 60% plant cover, excluding the trees, is estimated at 55% sagebrush, 20% rabbit brush (most in prior disturbance areas), 15% sage and 10% native grasses and other plants. The extremely sandy soils will be beneficial to re-vegetative success.

Kiewit Mine Area – The rocky hills have less than 25% plant cover of no brush and very few trees. The successfully reclaimed haul roads support slightly better amounts of grass. Vegetation within the cover is estimated at 65% sage brush, 15% rabbit brush, 10% sage and 10% native grasses and other plants.

Clifton Mine area – There is currently 50% - 60% plant cover of grass and sage brush and about 100 scattered pinion pine and juniper trees. Plant cover is estimated to be 65% sagebrush, 10% rabbit brush, 10% sage brush, 15% native grass and other plants. The extremely sandy soil will be beneficial to re-vegetative success.

Yellow Hammer Mine Area – Much of this area has been disturbed by prior mining and prospecting activities. It is estimated that there is about 30% plant cover outside the active and un-reclaimed mine. The plant cover is estimated to be 50% rabbit brush, 10% sage brush, 30% weeds (mostly tumble weeds) and 10% grass and other plants. The sandy soils appear to support re-vegetation.

106.8 Depth to Groundwater, Overburden Material, and Geologic Setting

Groundwater

The heap leach pad will be located below the head of Rodenhouse Wash on the east side. At the head of the wash and on each side, granodiorite and limestone bedrock hills rise up at a slope of about 2h;1v in all directions for approximately ½ mile. The water total collection area above the heap leach pad is only about 400 acres.

Negligible water was encountered in bedrock in any of the 50+ drill holes drilled in the immediate area of the Kiewit pit, the Yellow Hammer pit and the leach pad. Dumont Mining drilled three holes in section 18 near Rodenhouse Wash. Utilizing information from these drill holes, it is estimated that the depth to groundwater in the area will be 350 feet to 400 feet. A lack of major faults and fractures in the area of the facility would indicate a poor chance of a good bedrock based aquifer being present in the area of the pad.

Rodenhouse Wash runs from the pad for about five miles to the northeast where it discharges into the Great Salt Lake salt flats about two miles to the west of the west boundary of Dugway Proving Grounds. The slope of the wash is approximately 7% and is somewhat uniform for its entire length.

Gravel depths in the wash range from a few feet 1000 feet up gradient from the pad to 10-30 feet near the pad. A small mine decline at the head of the wash near the site of Clifton intercepts this surface water and acts to collect and store it. The depth to this water is about 15 feet. DHG intends to use this as a temporary water source for start-up of this project, and a 10,000 gallon water tank is proposed to store this water. In addition a deep water well will be drilled near the leach pad.

Approximately 100 feet down gradient of the pad a monitor well will be placed in the shallow alluvium to a depth of 40 feet or until it encounters bedrock. Based on past drilling and the local geology, it will be dry. The 7% slope of the wash, small upstream collection area and high permeability of the soils almost ensure that no surface or shallow ground water of any extent will be present. The soils are very high in sand content with virtually no silt or clay. The well will be monitored as directed by the Utah Department of Water Quality. If water appears in the well, it will be collected and the sample analyzed. We would expect the well to collect some minor water during extremely wet periods.

A second monitor well will be drilled to a depth of 250 feet or to viable bedrock and cased with solid pipe below the alluvium. Based on past drilling, we expect this hole will also be dry.

Overburden Material

The overburden or waste dump material will generally consist of a weathered igneous rock termed granodiorite (sometimes called quartz monzonite). The average depth of overburden from the surface to fractured granodiorite in the Kiewit, Yellow Hammer and Clifton Shears pits ranges from a few inches to a few feet. The overburden that can be harvested without contaminating it with waste rock material will be stripped to bedrock and placed in plant growth material stockpiles near the pits. The growth medium

stockpile will be hand broadcast seeded with DOGM dictated seed mix to provide stability until final reclamation. During final reclamation the waste dumps will be graded to a 3h:1v slope and then plant growth material used to cover the reclaimed slope. If sufficient growth material is not available, small pods of material will be placed to produce islands which will become a seed source for the remaining areas.

Plant growth medium material stockpiled will be as follows:

Heap leach pad process area 845,000 square feet x 4"	10,500 cyd
Haul road 70 feet wide x 4600' x 4"	4,000 cyd
Kiewit Pit 500' x 1200' x 2"	<u>3,700 cyd</u>
Total	18,200 cyd

Geology of the Area

The Kiewit Project is located in the east central part of the Great Basin. The Great Basin is characterized by north-south trending fault blocks composed primarily of sedimentary rocks that form mountain ranges. These sedimentary rocks are intruded in the Kiewit project area by granitic rocks (granodiorite or quartz monzonite) of Tertiary age (Figure 4). The Gold Hill region has been extensively mineralized and boasts 43 historical mines and workings together with many mineral showings. These workings have produced gold, silver, copper, antimony and other metals, primarily during the period from the late 1800's until World War II.

The Kiewit zone consists of a north-south trending zone of silica stock works containing gold and silver within a granodiorite of Jurassic age. This zone is silicified, highly altered, and perhaps 4000 feet long, 1000 feet wide and from 5 to 40 feet thick. The silver deposits near Clifton are related to a swarm of sub-parallel fissure veins (or "shears") in granodiorite. These veins strike north and north-east and dip very steeply, generally to the east.

The Yellow Hammer Mine hosts copper veins that occur in a sheared and broken granodiorite host rock. The copper sulfide minerals in these veins have been weathered and oxidized to the degree that they are almost non-existent. Residual sulfides do not exist in sufficient quantities to become potential ARD problems. Host rock is limestone and monzonite which will exhibit sufficient neutralizing potential should sulfides be encountered. Historic mine dumps in the area show no evidence of ARD problems.

106.9 Location and Size of Ore and Waste Stockpiles, Tailings and Water Storage/Treatment Ponds and Discharges:

Waste/Overburden Stockpiles

Waste rock and overburden will be placed near the open pit mines as shown on Figures 6 thru 11. The projected amounts of waste rock are estimated to be: Kiewit Mine (1,500,000 tons per year), Clifton Shears Mine (10,000 tons per year) and Yellow Hammer Mine (200,000 tons total). Waste from the Kiewit pit will be placed in a waste dump immediately north of the pit. Present plans are to place waste produced from this area back into mined out areas of the pit. Waste rock from the Yellow Hammer pit will be placed adjacent to the mine to the east, southeast and north.

Ore Stockpiles

The crushed ore from the Kiewit and Clifton Shear Mines will be placed on a lined pad within the Kiewit Project permit area. The estimated 2,050,000 tons of ore projected to be leached over a 2-year period can be placed on the proposed 19.5 acre pad.

About 200,000 tons of ore will be removed from the Yellow Hammer Mine over the next two years. This ore will be trucked about five (5) miles to a leach pad located at the Cactus Mill, not far west of the town of Gold Hill.

Tailings

No tailings will be produced at this operation.

Water Storage/Treatment Ponds

The leach pad, process area pond and a perimeter berm are designed to prevent run-on water from storm events. The berm around the pad area will prevent any storm water runoff coming off the staging area from running into the pad and pond areas. The process pond has adequate capacity to hold the runoff from a 10 year 24 hour precipitation event. The capacity of the pond is more than 6 million gallons (see Section 106.2 – Pond Design). Estimated runoff from areas within the pad area during a 10 year 24 hour event is estimated to be about 660,000 million gallons. The process area will have the capacity to contain that additional volume if a break down of the run-on protection berms should fail.

Any storm water that may report to pits will be contained within the area by both the pit depression and surrounding safety berms. A storm water management plan has been prepared and will be put into place (Appendix XI).

Discharges

No water or process solutions will be discharged from the site. A storm water catch basin will be built to remove up-gradient silt from leaving the permit area. The storage capacity of the catch basin and the pit retention bermed areas is sufficient to contain a 10 year 24 hour precipitation event, plus maximum process water flows over a 48 hour period.

IV R647-4-107 Operation Practices

As required, the relevant Operation Practices stipulated in R647-4-107 will be followed.

V R647-4-108 Hole Plugging Requirements

There are no plans for future drilling within the permit area for exploration. If drilling for any reason other than blast hole drilling is planned in the area, DHG will notify DOGM and the follow permitting procedures will be employed:

- Drill holes shall be property plugged as soon as practical and shall not be left unplugged for more than 30 days without approval by DOGM.

- Dry holes and non-artesian holes that do not produce significant amounts of water may be temporarily plugged with a surface cap to enable DHG to re-enter the hole for the duration of set operations.
- Surface plugging of drill holes outside the actual mine area shall be accomplished by setting a nonmetallic permaplug at a minimum of five (5) feet below the surface, or returning the cuttings to the hole and tamping the returned cuttings to within five (5 feet) of ground level. The hole above the permaplug or cuttings will be filled with a cement plug. If cemented casing is to be left in place, a concrete surface plug may not be required as a permanent cap is secured on top of the casing.
- Drill holes that encounter water, oil, gas or other potential migratory substances and are 2.5 inches or greater in surface diameter will be plugged in the subsurface to prevent the migration of fluid from one stratum to another. If water is encountered, plugging shall be accomplished as outlined below.
- If artesian flow (i.e. water flowing to the surface from the hole) is encountered during or upon cessation of drilling, a cement plug will be placed to prevent water from flowing between geologic formations and at the surface. The cement mix will consist of API Class A or H cement, with additives as needed, and will weigh at least 13.5 lbs./gal. It will be placed under the supervision of a person qualified in proper drill hole cementing or artesian flow.
- If the surface owner of the land affected desires to convert an artesian drill hole into a producing and/or monitor well, the landowner will provide written notification to DOGM accepting responsibility for the ultimate plugging of the drill hole.
- Holes that encounter significant amounts of non-artesian water shall be plugged by 1) placing a 50-ft cement plug immediately above and below the aquifer(s) or filling from the bottom up (through the drill casing) with a high grade bentonite/water slurry mixture. The slurry shall have a Marsh Funnel viscosity of at least 50 seconds per quart prior to the adding of any cuttings.

VI R647-4-109 Impact Statement

109.1 Surface and Ground Water Systems

Surface Water

No perennial streams or intermittent waters have been or are expected to be impacted by mining operations at the Kiewit Project. Any precipitation and/or run-off into the pits from sheet flow, which enters the pits from the hillsides or drainages above, will be contained within the pit and be collected along the pit face. Any runoff in the area of the leach pad will be diverted by berms and collected in the catchment basin located below the process area. A storm water management plan is included as Appendix XI.

Ground Water

Based on limited drilling by Dumont Mining, the depth to ground water in the area of the heap leach pad is 350 feet to 400 feet. No ground water has been encountered in the surface mines or shallow drill holes. The mining activities will not impact ground water quality or resources. The process facilities are designed and built with a liner to insure that process water does not escape the facility and impact ground water. A ground water protection plan is being prepared.

109.2 Wildlife Habitat and Endangered Species

Prior surface disturbances which resulted in the sparse vegetation in the area, a minimal amount of wildlife habitat will be lost as a result of this operation. The general area around the project does see some use by an occasional antelope, but no other big game species have been observed in the area. The site is located close to the settlement of Gold Hill.

Other wildlife species that occur in the Tooele County area (BLM 1998) include golden eagle, bald eagle, ferruginous hawk, kit fox, Great Basin rattlesnake, black tail jackrabbit and cotton tail rabbit, and other small mammals and birds.

Federally listed species that may have the potential to occur in Tooele County include:

Bald Eagle (<i>Haliaeetus leucocephalus</i>)	Threatened
California condor (<i>Gymnogyps californicus</i>)	Endangered/Experimental- Non-Essential
Utah prairie dog (<i>Cynomys parvidens</i>)	Threatened
Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>)	Candidate

Bald eagles typically nest in large trees, primarily cottonwoods and conifers, although they have also been known to nest on projections or ledges of cliff faces. There is no nesting or roosting habitat on or near the property. Bald eagles are uncommon to rare visitors in the Gold Hill area and may occasionally pass through while hunting. Bald eagles would not be impacted by the mining operations in this area.

The California condor is designated as an experimental, non-essential population in this part of Utah. As part of a captive breeding and reintroduction program, California condors were released into the wild at the Vermillion cliffs in northern Arizona near the Grand Canyon in 1997. Condors from this release site have subsequently been observed in various locations in southern Utah, including in and around Zion national Park. These sightings appear to be isolated incidents, and the birds appear to eventually return to the Vermillion Cliffs. These individuals are part of a non-essential experimental population and are not subject to the same level of protection as naturally occurring populations of listed species. This species is no known to nest or roost near the permit area; mining activities would not impact this species.

The Utah prairie dog is the westernmost member of the genus *Cynomys*. The species range is limited to the southwestern quarter of Utah. Utah prairie dogs have not been observed in the project area and would not appear to be impacted by mining activities in the operations area.

The western yellow-billed cuckoo is a bird that occurs in cottonwood-willow forests in the west. Populations in Utah have been historically noted to be uncommon to rare. Due to the lack of vegetation or riverine habitats in the operations area, the bird would not be expected to appear and therefore would not be impacted by mining operations in the area.

109.3 Existing Soil and Plant Resources

After mining, approximately 18,200 cubic yards of plant growth medium will be stored from the mining operation for reclamation. All plant growth material stockpiles will be constructed with 2H:1V slopes with a flat to slightly arched top. A 1-foot high x 3-foot wide berm with interior ditch will be constructed around each plant growth stockpile area using material harvested from the land surface where the pile is located. The ditch will catch and retain any soil that sloughs off the stockpile, and the berm will prevent contamination and erosion from storm water.

Substitute topsoil material may have to be developed to augment the minimal topsoil resources available. This substitute material would include a mix of natural or crushed fines, small rock, and pit run material and fertilizer to enhance growth. This material would be stored and spread separately from actual growth medium resources.

The newly stockpiled medium will be seeded in the fall of each year it has been enlarged with a DOGM dictated seed mix in order to minimize erosion.

Table 8: Suggested Seed Mix for Topsoil Stockpiles

Scientific Name	Common Name	PLS* Pounds Per Acre
<i>Elytrigia intermedia</i>	Intermediate Wheatgrass	2.5
<i>Psuedoroegneria spicata</i>	Bluebunch Wheatgrass	2.5
<i>Achantherum hymenoides</i>	Indian Rice Grass	2.0
<i>Elymus elymoides</i>	Bottlebrush Squirreltail	1.5
<i>Poa sandbergii</i>	Sandberg Bluegrass	1.5
<i>Medicago sativa</i>	Alfalfa	.75
<i>Agropyron cristatum</i>	Crested Wheatgrass	2.5
<i>Hedysarum boreale</i>	Northern sweetvetch	1.25
	Total	14.50
*PLC= pure live seed		

All areas disturbed by DHG in the Kiewit Project area will be reclaimed at the end of mining by regrading (ripping compacted surfaces where necessary), topsoiling, and re-seeding as described in Section 110, with the goal of creating a self-renewing, perennial vegetation cover similar to native conditions.

109.4 Slope Stability, Erosion Control, Air Quality, Public Health and Safety

Slope Stability

The rock at the Kiewit, Clifton and Yellow Hammer mines is fractured and broken granodiorite rock of Jurassic age. During mining, all active bench heights will be maintained at 20-foot maximum height. The overall slope of these high walls will not exceed 45 degrees. DHG will inspect active high walls several times per month. A more extensive high wall inspection is also conducted yearly or as required by an MSHA inspector.

Please refer to R647-4-110.2, Reclamation Plan – High walls, for further information on slope stability during reclamation.

Erosion Control

Rodenhouse Wash (a dry stream bed) passes near the leach pad area and the Kiewit mine and waste dump area. Water does flow through this wash during rare intermittent thunder storms and other events. Great care will be taken to see that such flooding does not impact any of the permit areas. A Storm Water Management Plan has been prepared and is included (see Appendix XI). This Plan is based on a 10 year 24 hour precipitation event.

There are no defined water channels within the areas of the Clifton or Yellow Hammer planned disturbances. However, the hillsides adjoining the pits are anticipated to shed water into these pits during precipitation events. Any runoff into the pits will be contained with the pits and collected near the face of the pit.

Air Quality

The crushing and screen operation has the potential to produce dust that will affect air quality. The contractor doing the crushing and screening operations will have an Air Quality permit issued through the State of Utah, Department of Environmental Quality, Division of Air Quality (DAQ). This permit is issued to the equipment that will be used to perform crushing and screening activities. Ore will be hauled from the mines to the crusher/equipment area on maintained gravel haul roads. These roads will be watered as necessary to keep down excessive dust.

Public Health and Safety

DHG will minimize the hazards for public safety and welfare during operations. These measures include:

- Fencing and signing any shafts or tunnels that may exist within the permit area. All mine areas, buildings, crushing equipment, process facilities, and other equipment will be signed to discourage unauthorized or accidental entry in accordance with MSHA regulations.
- Trash, scrap metal and wood, and extraneous debris is disposed of in marked containers that will be picked up monthly and disposed of properly.

- Any exploratory or other drill holes will be plugged and/or capped of as set forth in Rule R647-4-108.
- Appropriate warning signs are located at public access points.
- All deleterious or potentially deleterious material, such as fuel tanks and supplies of lubricants and oils, are kept in secondary containment that has 110% of the capacity of the tanks to control any adverse environmental effects of any upset condition.

This site is located in a remote area where there are few visitors.

VII R647-4-110 Reclamation Plan

110.1 Current Land Use and Post-Mining Land Use

The current use of the land is as wildlife habitat and livestock grazing. The proposed future post-mine use of the land is also wildlife habitat and livestock grazing. This post-mining land use will remain consistent with historical use.

110.2 Reclamation of Roads, Highwalls, Slopes, Leach Pads, Dumps, Etc.

Roads

Roads which did not exist prior to this operation will be ripped to remove compaction and seeded. Roads on flat or gently sloping ground will be graded to blend the road crown and ditches with surroundings. Roads cut into steep slopes will be ripped and graded to drain toward the cut side to minimize erosion and encourage vegetation establishment. Growth medium which was bladed to the side to form berms will be redistributed over the road surfaces prior to ripping.

Highwalls

When mining is completed, highwalls disturbed by DHG would be left at a 45 degree or flatter angle to assure slope stability. The pit floors would be graded to drain at a 1% slope toward the remaining highwall. As now planned, mining will continue as long as the metal economics will support the operation

Slopes

All slopes and floors within the disturbed, bonded areas will be ripped on the contour to relieve compaction and create a better seed bed (this is discussed further in Sub-section 110.5 below). The quarry floor will be graded to a 1% slope, draining toward the previous highwall area.

Impoundments, Pits, Ponds

The pits will not be backfilled except for the replacement of overburden material on the floor of the pits. The pits will be mined to a 45 degree slope therefore no further action is anticipated in these areas. Pit floor will be reclaimed with a 1% slope to contain water against the highwall, where water will percolate into the bedrock and/or evaporate. No impoundments or ponds will be left that require maintenance or monitoring. Sediment ponds constructed on site will be removed and the disturbed areas ripped and seeded.

Upon closure, the containment pond below the leach pad will be backfilled sufficiently to assure the pond are will not retain surface water. The area will then be ripped and seeded.

Drainages

No drainages will be constructed. The native land outside the perimeter of the pits and leach pad area is generally on gravelly, vegetated outwash plain and is subject to overland flow rather than channelized flow. The major exception is Rodenhouse Wash. This is a large dry stream bed that will be affected by the process facilities and the Kiewit and Clifton pits. During operations a Storm Water Management Plan will be put in place to confine water from intermittent precipitation events to the channel. This plan will include the construction of earthen berms and culverts, placed at strategic locations to prevent any surface runoff from entering the leach pad or pit areas. When the operation is completed these berms will be leveled, ripped, seeded and the wash left to its natural state.

Dumps, Shafts and Leach Pads

Upon closure waste dumps will be graded to a 3H:1V slope or less. Any growth medium that is available will be spread on these surfaces and the areas will be ripped and seeded.

Any shafts or underground openings developed or impacted by DHG will be fenced and closed as per DOGM regulations when the operation is closed. The project is not expected to involve any underground mining.

The heap leach pads and other impacted sites within the permit area will be graded and contoured with final slopes of 2H:1V or less. Sufficient room will be left at the toe of the leach pad slopes to grade any areas which exceed that final slope. The material on the leach pad will be placed at an overall slope of 2H:1V. Therefore no regrading of these slopes is contemplated.

The proposed method of leach pad closure, after processing operations stop, is to rinse the pad with fresh water for a period of three (3) years. Fresh water will be applied to the pad, and returning solutions will evaporate as they accumulate. Water quality will be monitored on a quarterly basis. The pad will be secured and access restricted during this period. A final closure plan will be proposed at the end of this period based on water quality results.

Drill Holes

No drill holes outside of those required for blasting are anticipated. If any holes are drilled, they will be plugged and sealed as described in R647-4-108. There will be no drill holes left open upon reclamation.

110.3 Surface Facilities to be Left

No structures will be left. All facilities will be reclaimed. Any buildings and support facilities will be demolished and debris either removed or buried on site. Any debris contaminated as a result of the operation will be thoroughly rinsed before disposal.

110.4 Treatment, Location, and Disposition of Deleterious Materials

Potentially hazardous and non-salvageable debris from demolition will be properly disposed of at an offsite facility. All tanks will either be removed to a licensed landfill upon reclamation or sold.

All conveyors, crushers, screens and other equipment used for mining and processing of ore will be removed upon closure or sold.

110.5 Re-vegetation Planting Program and Topsoil Re-distribution

After final shaping and grading of the pit floors, the leach pad area, slopes and roads within the disturbed areas, surfaces will be ripped and/or scarified on the contour to relieve compaction and seeded.

Plant Growth Medium Replacement

All re-graded surfaces of the process facility and access roads not needed to provide future access to the site will be reclaimed. Prior to placement of growth medium, all surfaces will be ripped to remove compaction or scarified depending upon their condition after re-grading to provide a roughened surface to receive the growth medium. Medium will be spread to a depth sufficient to facilitate re-vegetation. If sufficient growth medium is not available, surfaces not receiving growth medium, cover material will be amended in order to facilitate re-vegetation.

Equipment used for this task includes a dozer, loader and trucks. In the event that sufficient growth medium is not recovered to cover all surfaces, the application thickness of growth medium may be reduced or the growth medium will be selectively applied. In the latter case, relative priority for the areas to receive replacement will be the plant site and access roads. The thickness and amount of growth medium replacement will vary according to the viability of material being covered. Soil testing will be performed prior to placement to ascertain whether amendments will need to be added prior to seeding.

Seed Bed Preparation

Areas to be seeded will be ripped to a minimum depth of 18 inches by a dozer prior to seeding. Access roads not required for future access will be ripped to a depth of 24 inches to remove compaction, growth medium replaced, and seeded.

Suggested Seed Mixture

Species Name	Common Name	Seeding Rate (lbs pure live seed/acre)
Agropyron Cristatum	Crested Wheatgrass	1.0
Dactylis Glomerata	'Piute' Orchard Grass	0.5
Elymus Cinereus	Basin Wildrye	2.0
Oryopsis Hymenoides	Indian Ricegrass	2.0
Penstemon Palmeri	Plamer Penstemon	0.5
Kochia Prostrata	Forage Kochia	0.5
Chrysothamnus Nauseosus	Rubber Rabbitbrush	0.5
Sanguisorba Minor Scop	Small Burnett	1.0
Lewisii Pursh	Lewis Blue Flax	1.0
Atriplex Canesnens	Four Wind Salt Brush	1.0
Artemisia Tridentata	Wyoming Big Sagebrush	0.1
	Total lbs/acre	10.1

Seeding Method

Areas to be seeded will be ripped to a minimum depth of 18 inches with a dozer. Broadcast seeding will be done on all surfaces scheduled for re-vegetation. Re-vegetation work, including both seedbed preparation and seed application will take place in the late fall season, and seed would be spread immediately following seedbed preparation.

Access roads will be ripped with a dozer to a minimum depth of 24 inches to remove compaction, then broadcast seeded. Areas within the process site will be ripped to a minimum depth of 12 inches prior to seeding.

Amendments

At the present time, the use of amendments is not anticipated. Should soil testing dictate the use of amendments, they will be applied to the growth medium prior to it being spread over ripped areas prior to seeding.

Other Re-vegetation Procedures

None

VIII R647-4-112 Variance

No variances are requested.

Amendments

At the present time, the use of amendments is not anticipated. Should soil testing dictate the use of amendments, they will be applied to the growth medium prior to it being spread over ripped areas prior to seeding.

Other Re-vegetation Procedures

None

VIII R647-4-112 Variance

No variances are requested.

IX R647-4-113 Surety

The reclamation surety calculations are contained in Appendix XII. A summary of the estimated costs of reclamation are included.

PERMIT FEE [Mined Land Reclamation Act 40-8-7(i)]

Permit fee of \$500 included with this submission

SIGNATURE REQUIREMENT

I hereby certify that the foregoing is true and correct. (Note: This form must be signed by the owner or officer of the company/corporation who is authorized to bind the company/corporation).

Signature of Permittee / Operator/Applicant: _____



Name (typed or print): _____

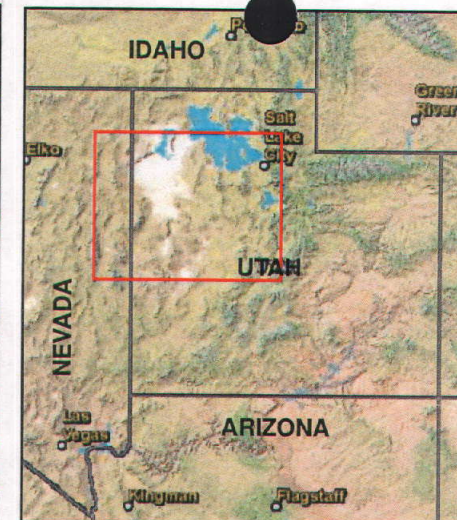
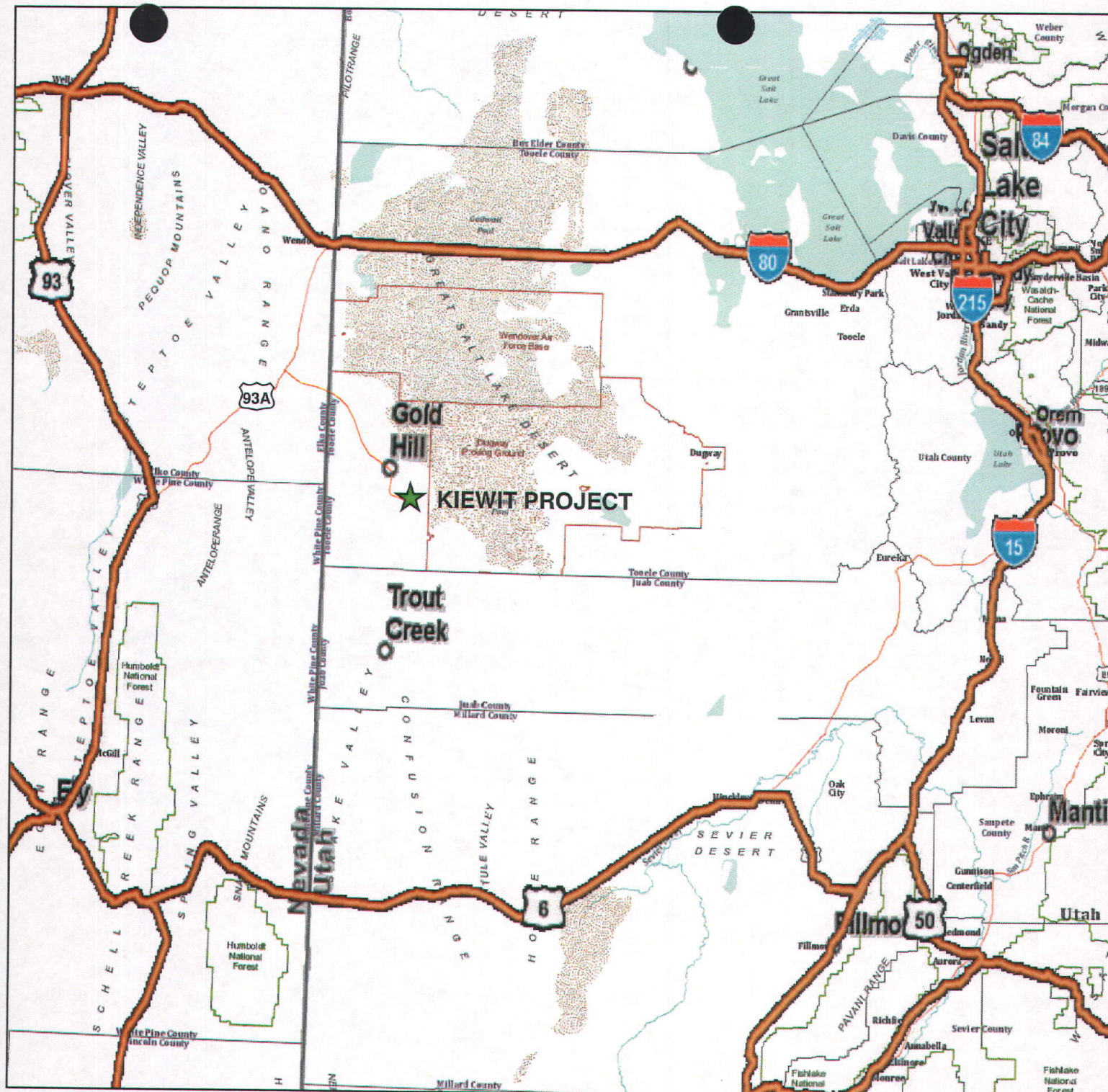
Rick Hansen

Title/Position (if applicable): _____

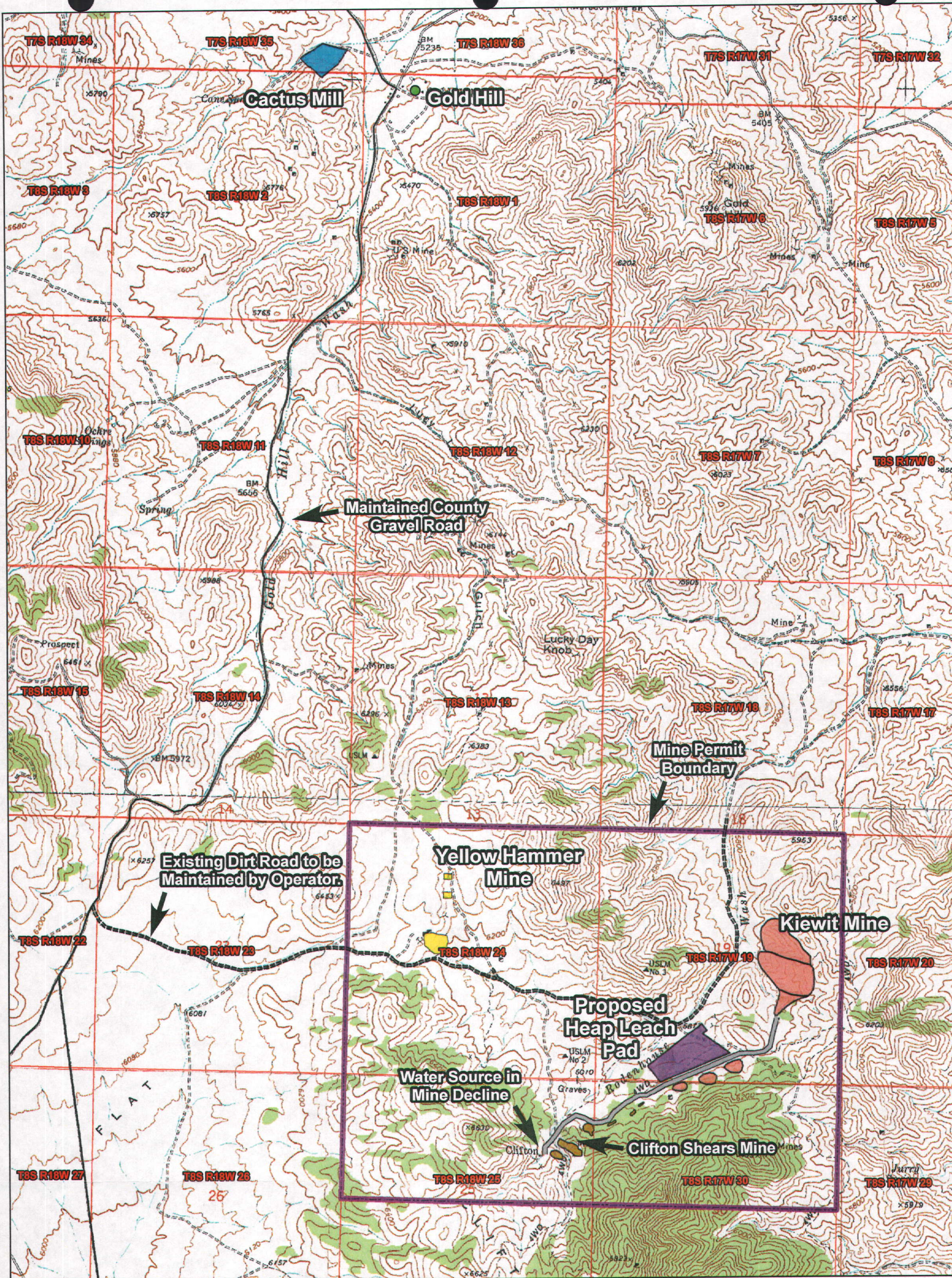
Pres

Date: _____

11/20/2010



<p>DESERT HAWK GOLD CORP KIEWIT PROJECT FIGURE 1 INDEX MAP Tooele County, Utah</p>	
Date: 1/2010	Kiewit_Figure 1_1-2010
<p>NORTH AMERICAN EXPLORATION 447 N 300 W, Suite 3 Kaysville, UT 84037 801-544-3421</p>	



Notes: Base map is Gold Hill, Utah 1973 and Clifton, Utah 1973 USGS 7.5 Minute Quadrangles.

- Kiewit Mine Permit
- Kiewit Mine
- Yellow Hammer Mine
- Clifton Shears Mine
- Propsed Heap Leach Pad
- Cactus Mill
- Haul Road

0 2,000 4,000
1 inch = 2,000 feet



DESERT HAWK GOLD CORP
KIEWIT PROJECT
FIGURE 2
LOCATION MAP
Tooele County, Utah

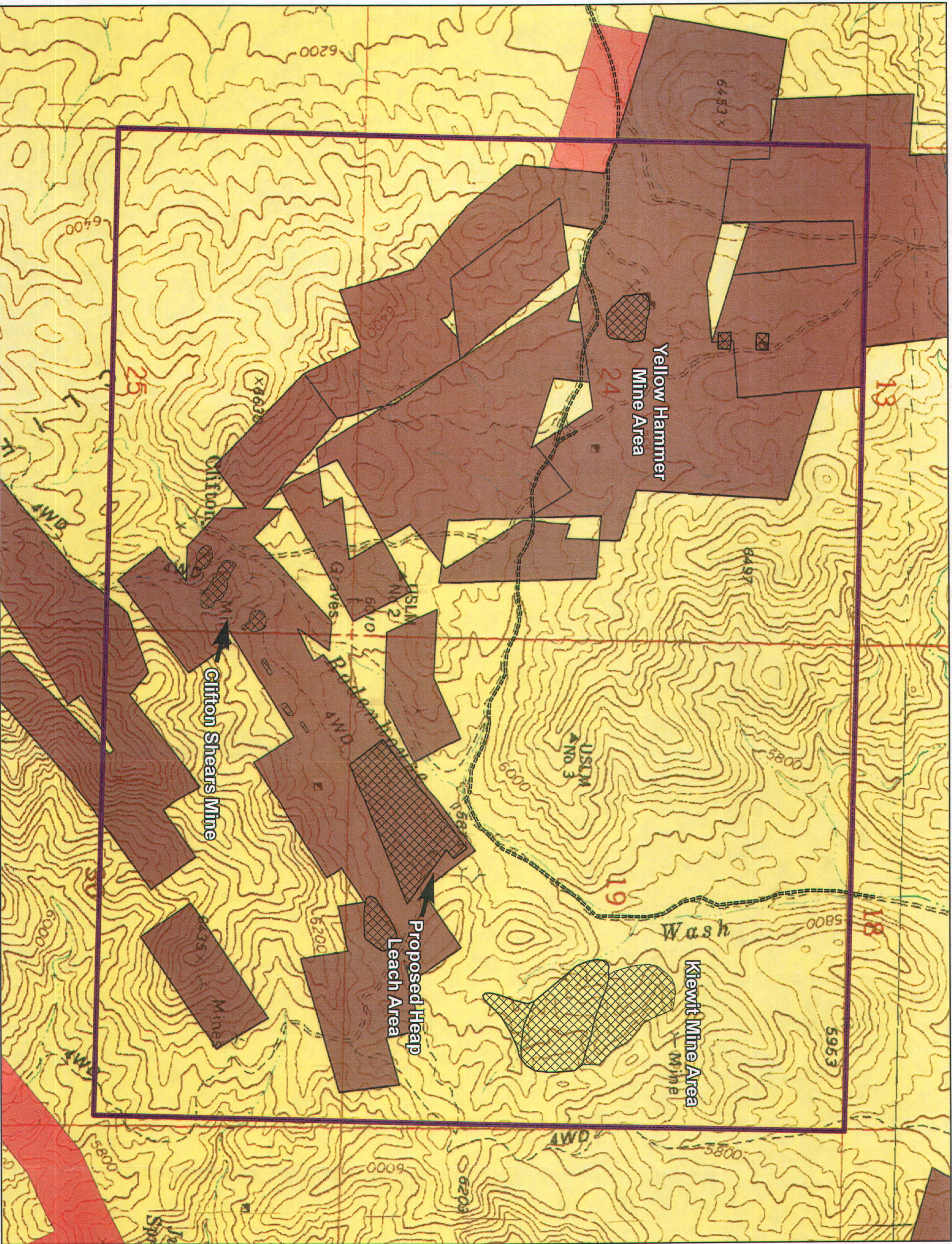
Date: 1/2010

Kiewit_Figure 2_1-2010

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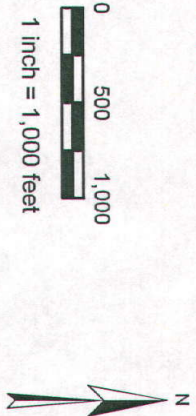




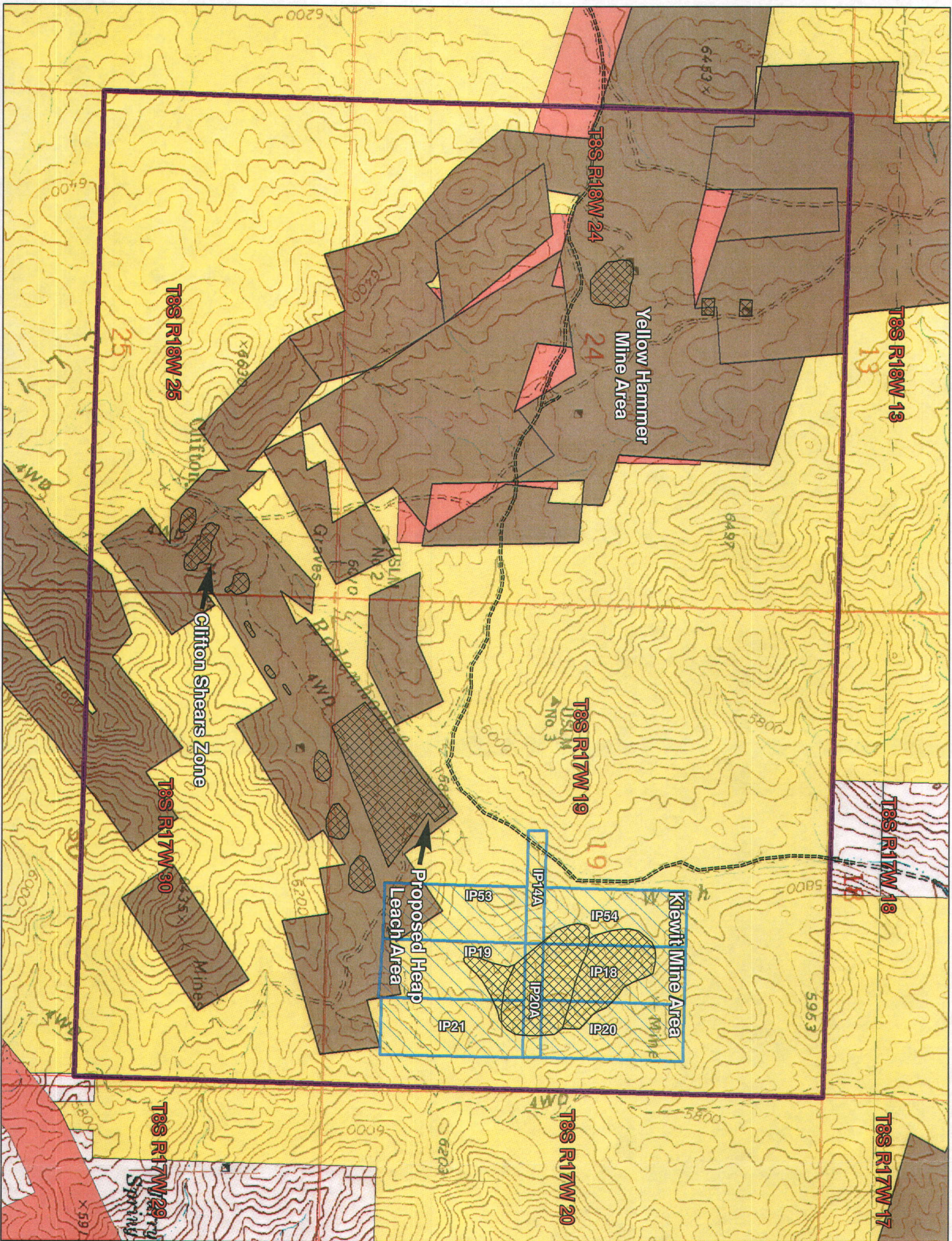
Legend

- Private Surface
- Leased by Desert Hawk
- Private Surface - Other
- Federal Surface
- Mine Permit Boundary

Notes: Base map is Gold Hill, Utah 1973 and Clifton, Utah 1973
USGS 7.5 Minute Quadrangles.



DESERT HAWK GOLD CORP KIEWIT PROJECT FIGURE 3 SURFACE OWNERSHIP Tooele County, Utah	
Date: 1/2010	Kiewit_Figure 3_1-2010
NORTH AMERICAN EXPLORATION 447 N 300 W, Suite 3 Kayville, UT 84037 801-544-3421	



Legend

- Patented Mining Claim
- Leased by Desert Hawk
- Federal Lode Mining Claim
- Patented Mining Claims - Other
- Unclaimed Federal Minerals
- Mine Permit Boundary
- Individual Lode Claims

Notes: Base map is Gold Hill, Utah 1973 and Clifton, Utah 1973
USGS 7.5 Minute Quadrangles.



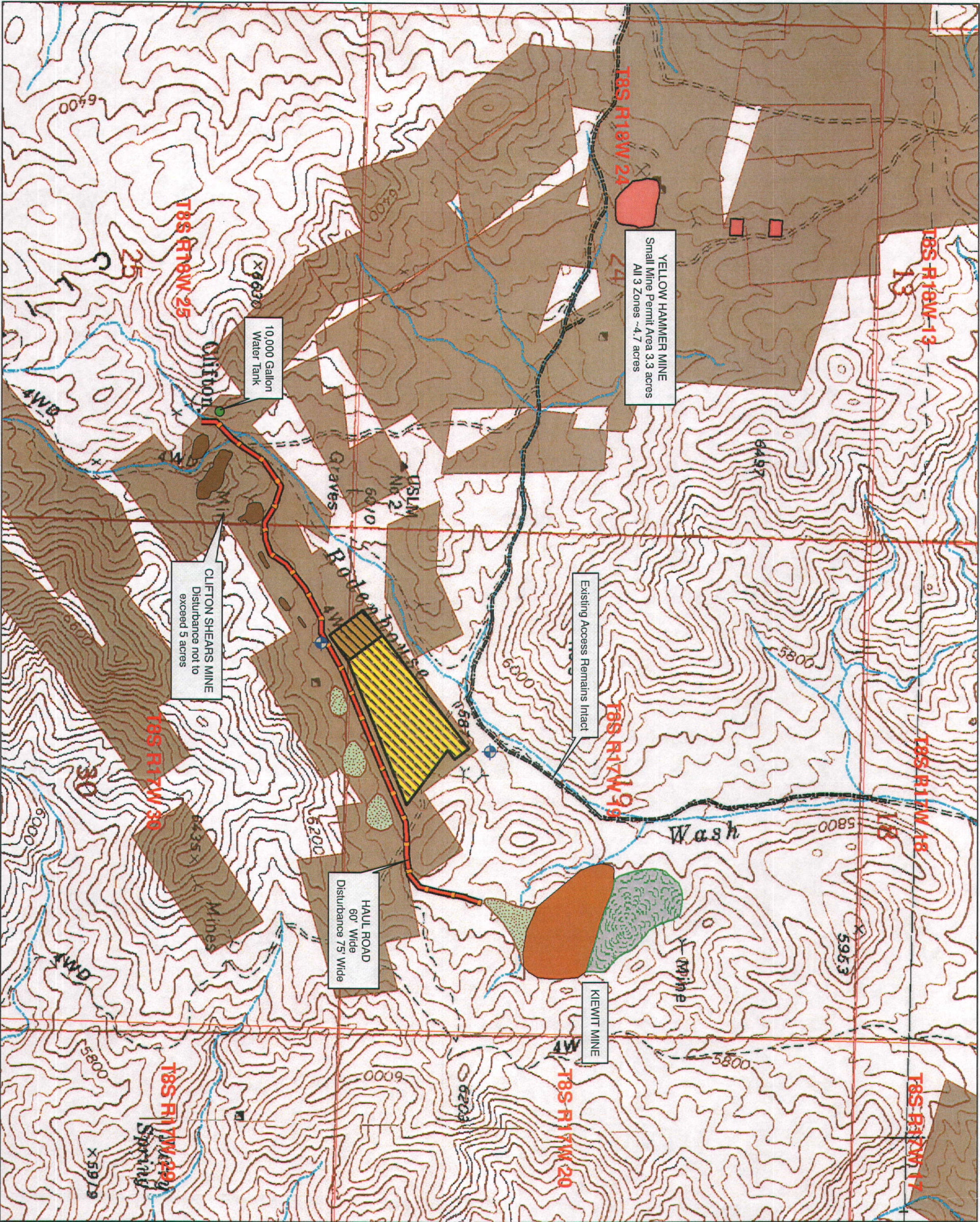
DESERT HAWK GOLD CORP
KIEWIT PROJECT
FIGURE 3A
MINERAL OWNERSHIP
Tooele County, Utah

Date: 1/2010 Kiewit_Figure 3A_1-2010

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Project Disturbance (acres)	Private	BLM	Total
Heap Leach & Process	19.5	0	19.5
Kiewit Pit	0	15	15
Kiewit Waste Dump	0	15	15
Containment Pond	0	4.5	4.5
Clifton Shears Mine *	5	0	5
Yellow Hammer Mine	9	0	9
Yellow Hammer Waste Dumps	2	0	2
Access Roads	1	1	2
Haul Roads	6.5	1	7.5
Crusher/ Equipment area **	5	0	5
Upper Soil Stockpile	0	4	4
Lower Stockpile	3	0	3
Misc	1	4	5
Total Disturbance (acres)	52	44.5	96.5

* Concurrent reclamation not to exceed 5 acres disturbance

** Max cut/ fill 5' from original grade. Except for berms, no slopes greater than 3:1

*** No top soil removal

Legend

- Kiewit Waste (15 ac)
- Kiewit Pit (15 ac)
- Containment Pond (4.5 ac)
- Soil Stockpile
- Yellow Hammer Mine (11 ac)
- Clifton Shears Mine (not to exceed 5 ac)
- Haul Road (7.5 ac)
- Heap Leach & Process (19.5 ac)
- Crusher/ Equipment Area (5 ac)
- Desert Hawk Land
- Monitor Well

0 500 1,000
1 inch = 1,000 feet

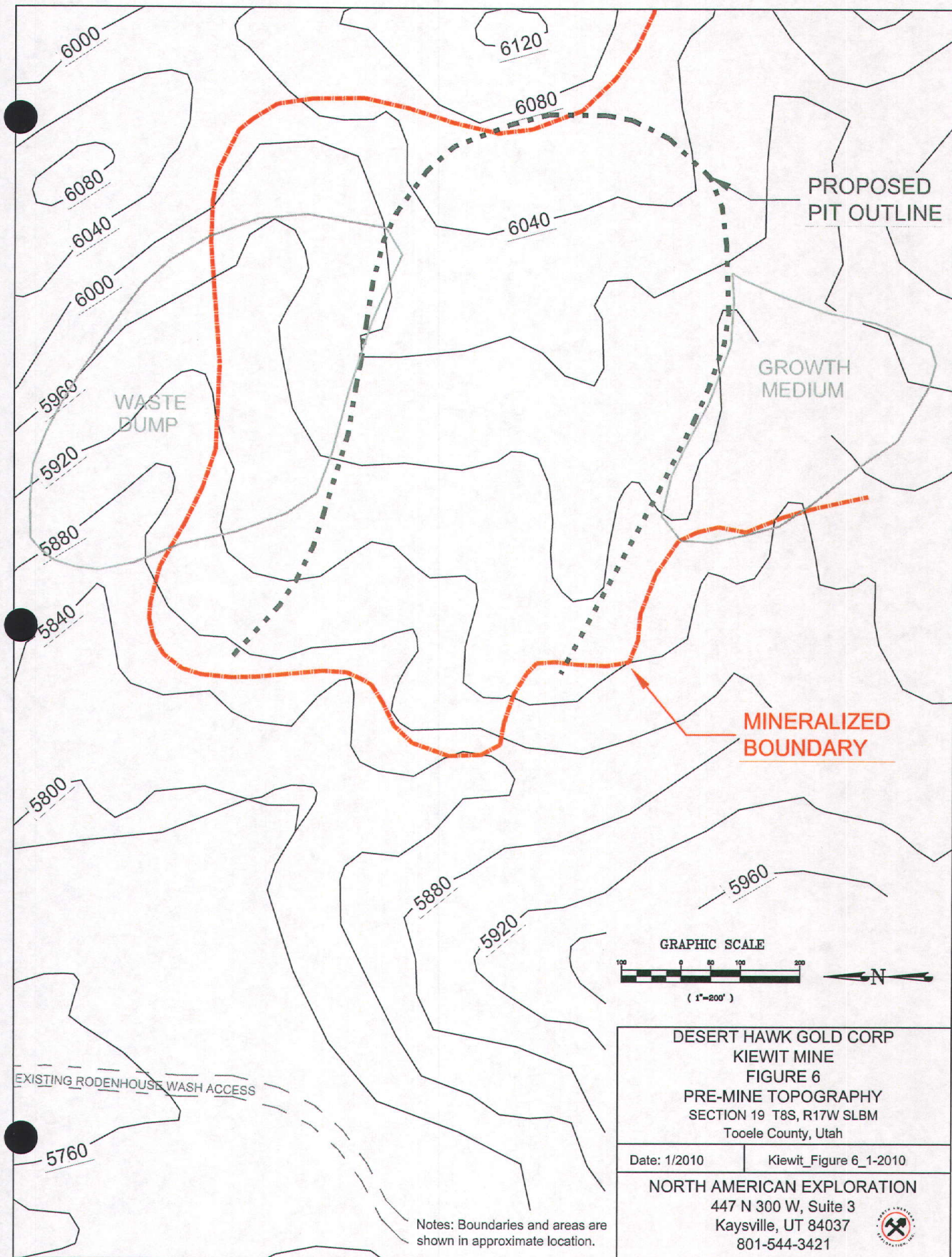


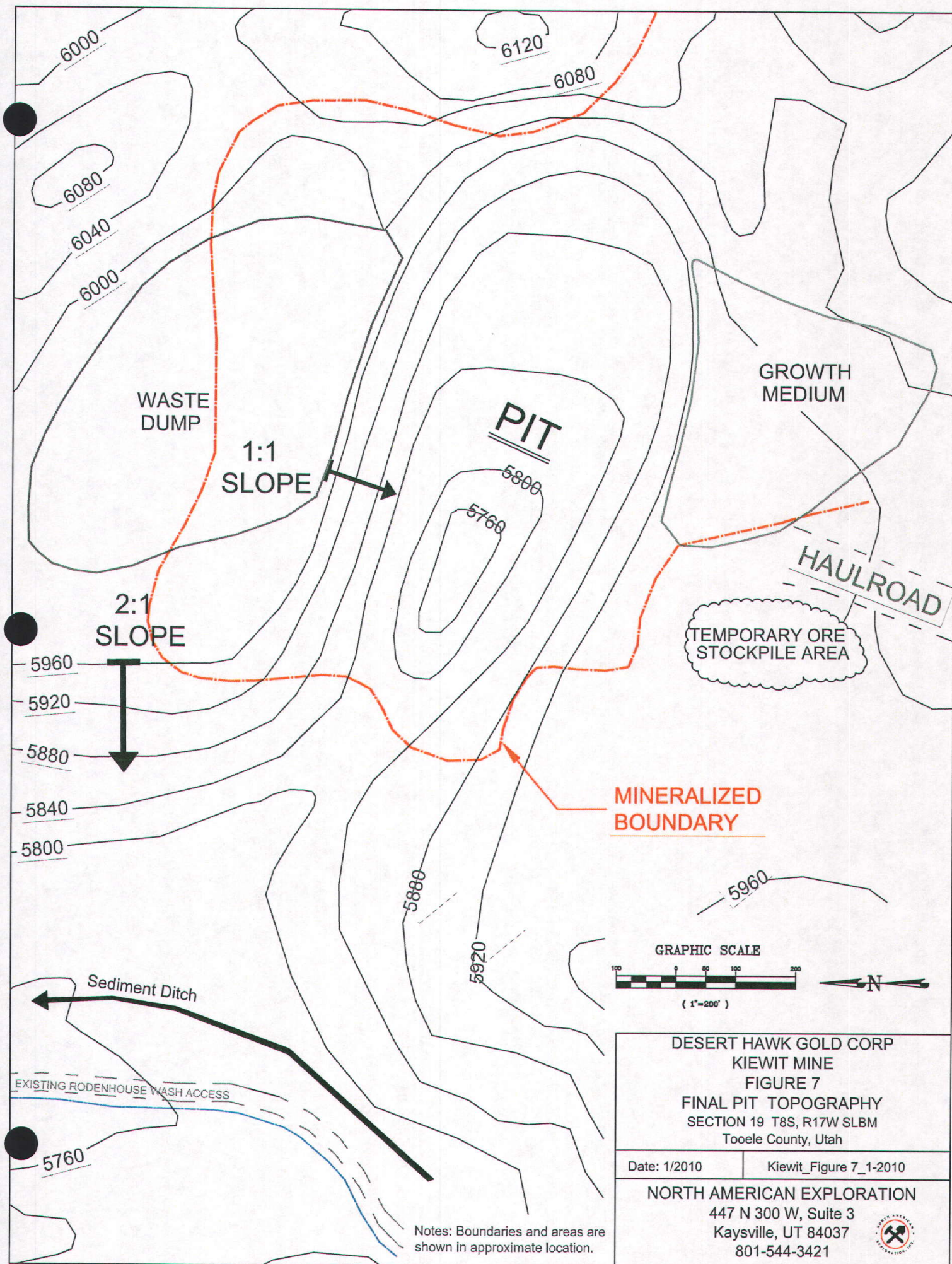
DESERT HAWK GOLD CORP
KIEWIT PROJECT
FIGURE 5
PROPOSED SURFACE FACILITIES
Tooele County, Utah

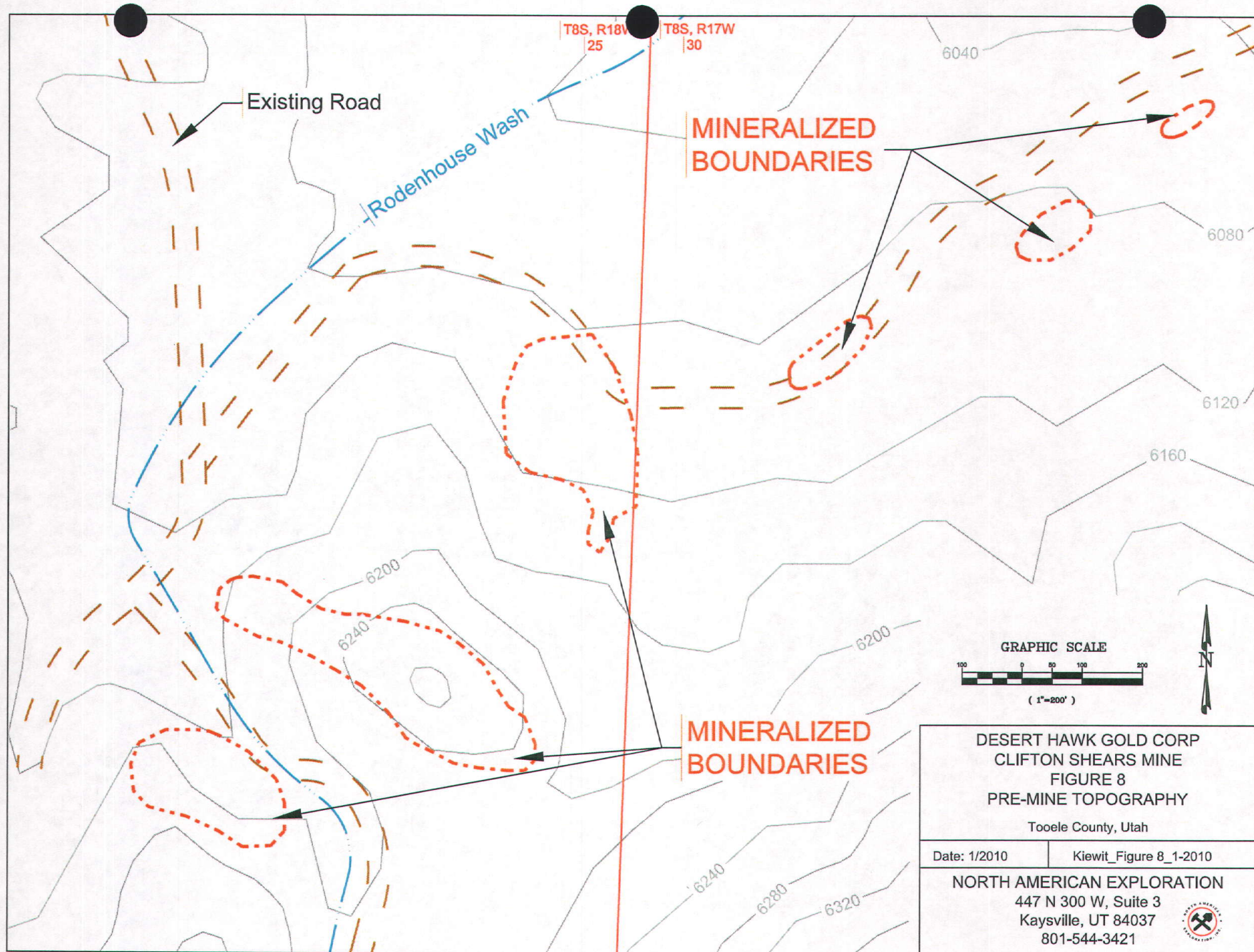
Date: 1/2010 Kiewit_Figure 5_1-2010

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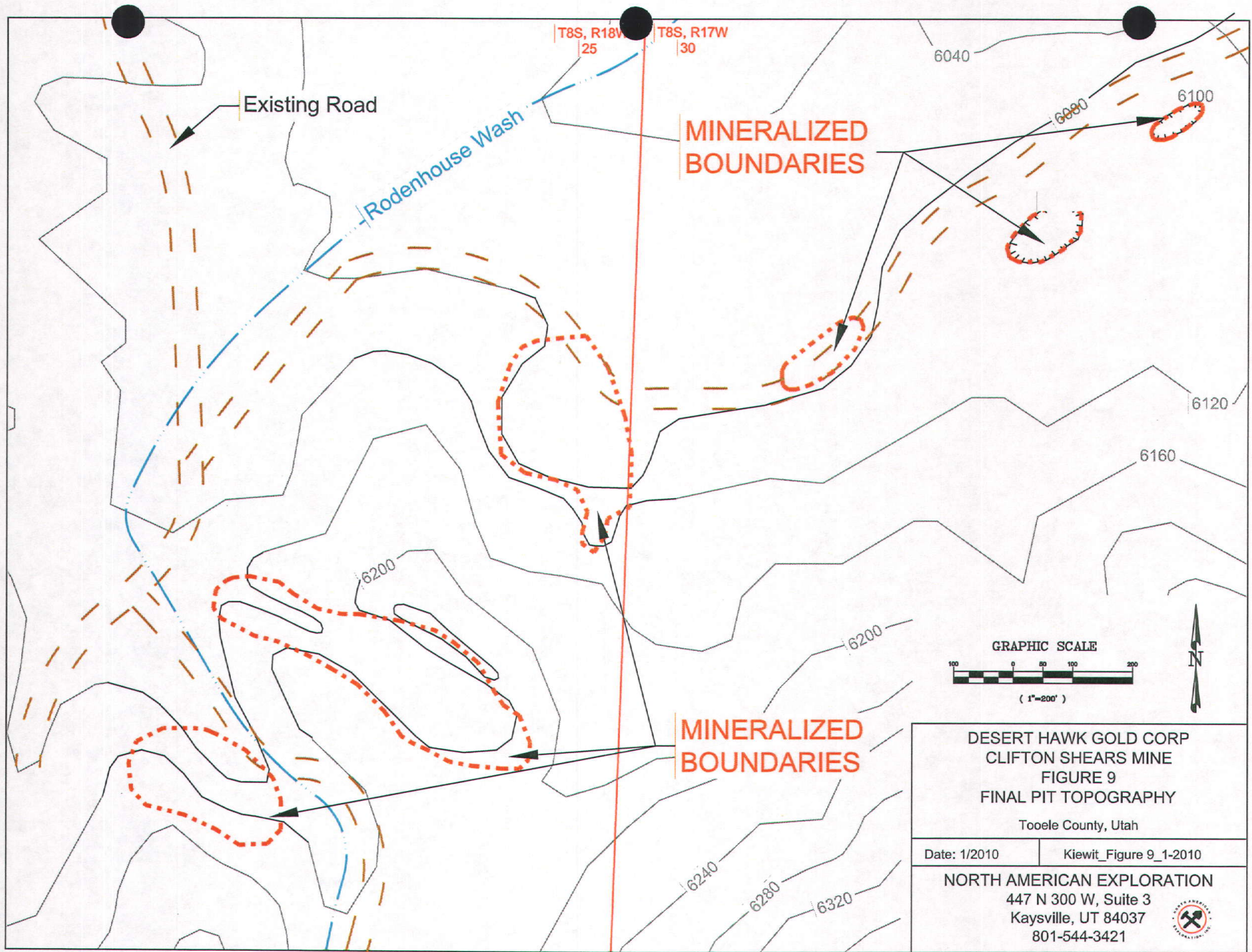
DESERT HAWK GOLD CORP
CLIFTON SHEARS MINE
FIGURE 8
PRE-MINE TOPOGRAPHY
Tooele County, Utah

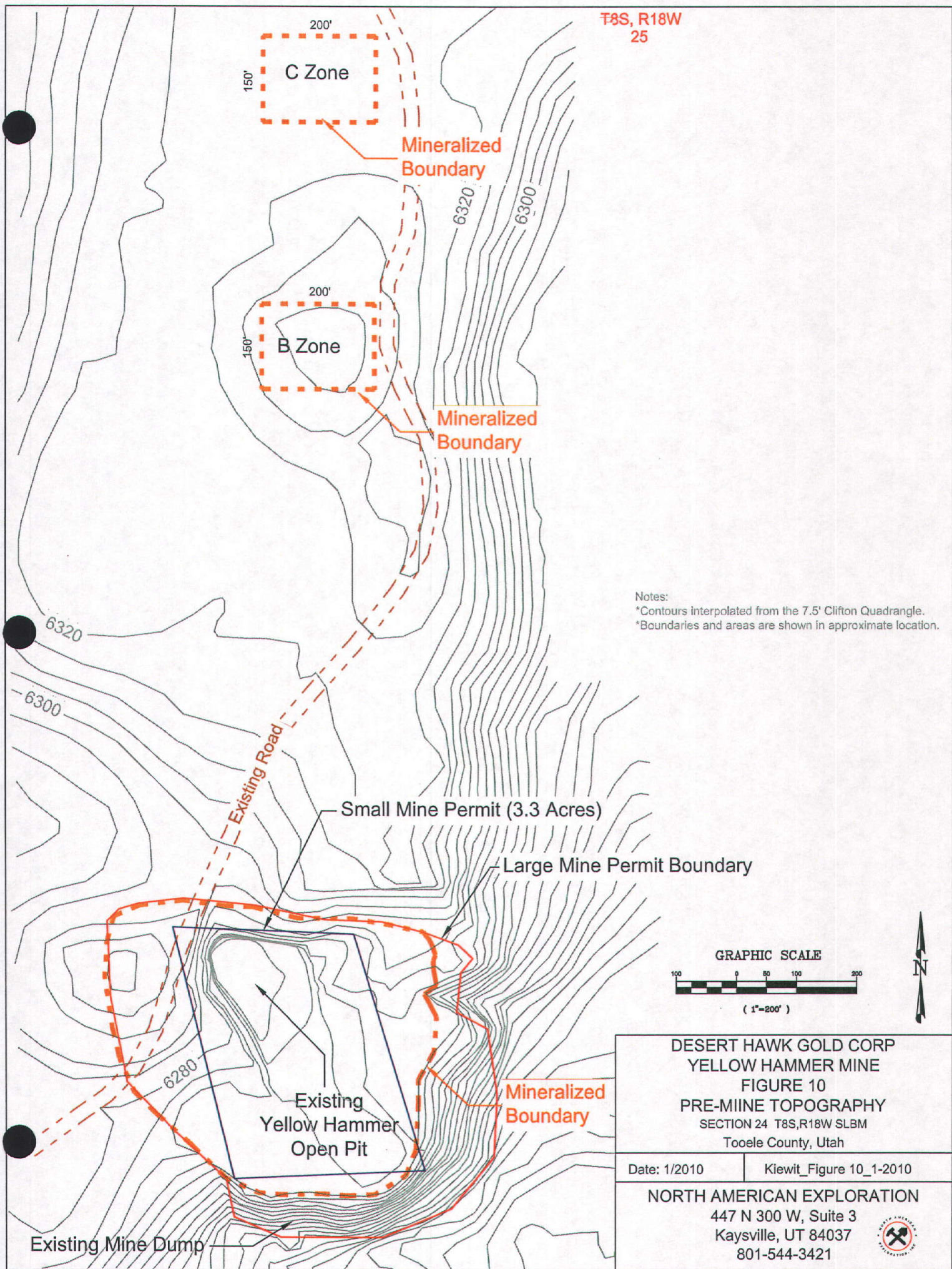
Date: 1/2010

Kiewit_Figure 8_1-2010

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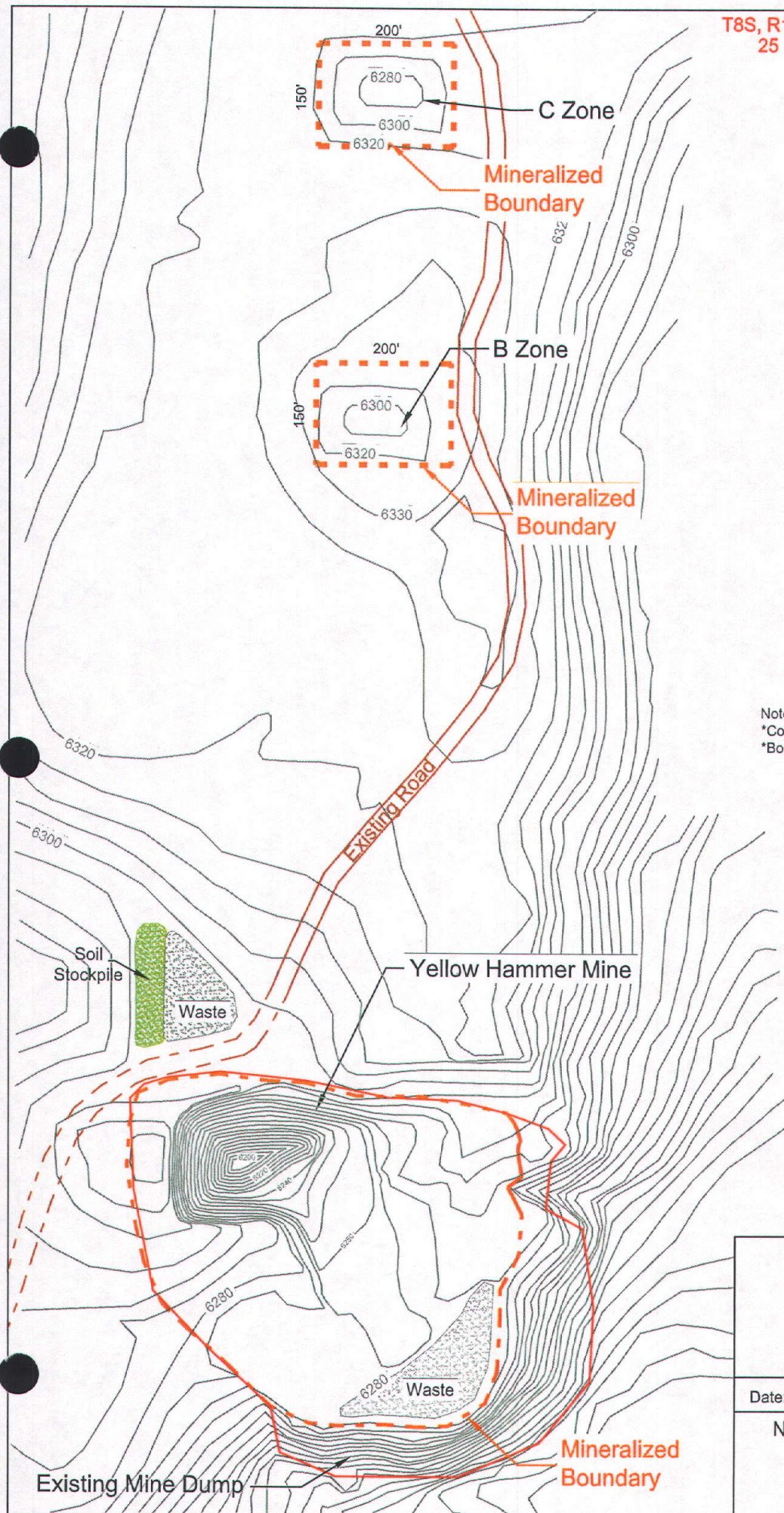
DESERT HAWK GOLD CORP
YELLOW HAMMER MINE
FIGURE 10
PRE-MINE TOPOGRAPHY
SECTION 24 T8S,R18W SLBM
Tooele County, Utah

Date: 1/2010 Kiewit_Figure 10_1-2010

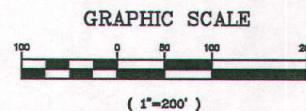
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T8S, R18W
25



Notes:
*Contours interpolated from the 7.5' Clifton Quadrangle.
*Boundaries and areas are shown in approximate location.

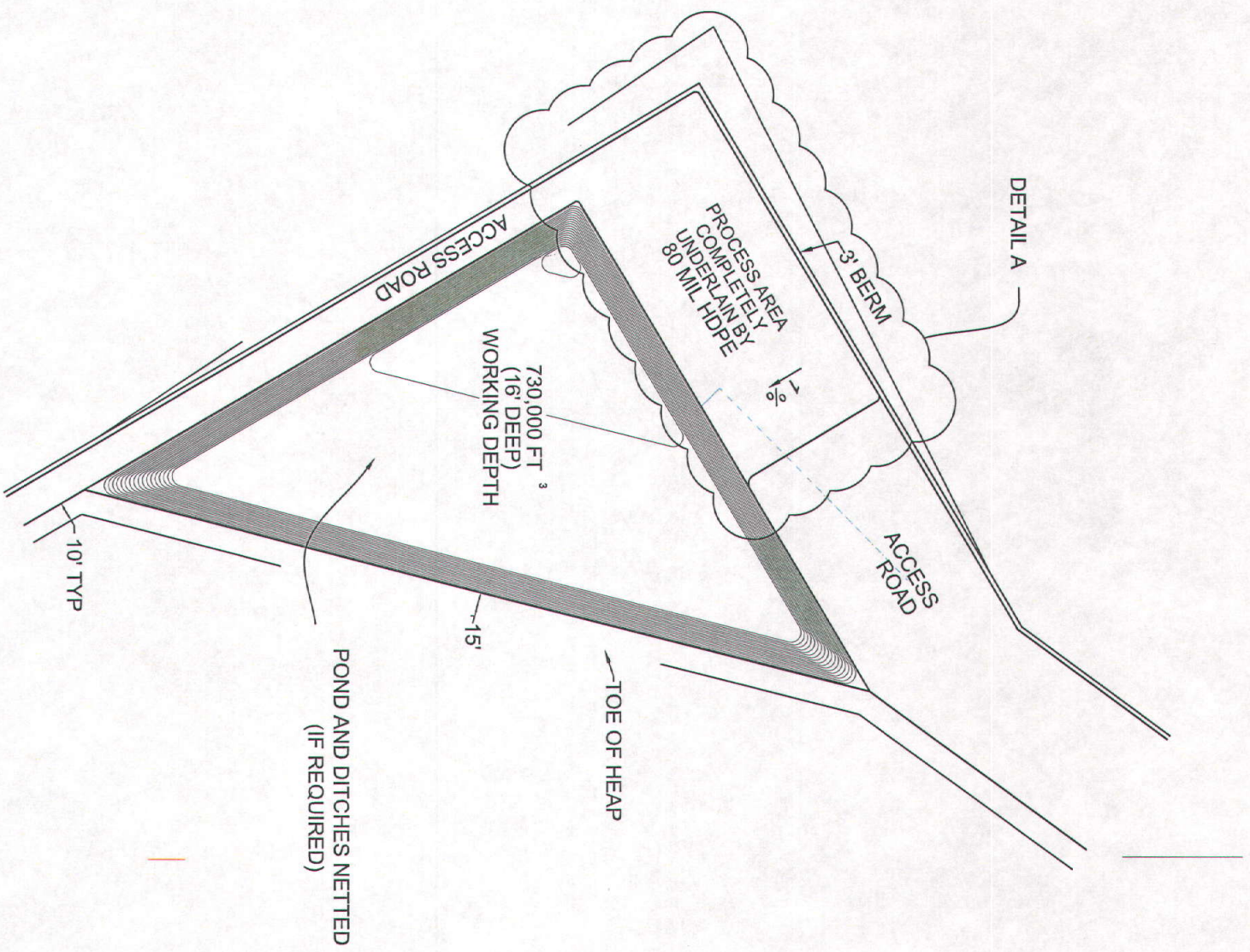


DESERT HAWK GOLD CORP
YELLOW HAMMER MINE
FIGURE 11
FINAL PIT TOPOGRAPHY
SECTION 24 T83, R18W SLBM
Tooele County, Utah

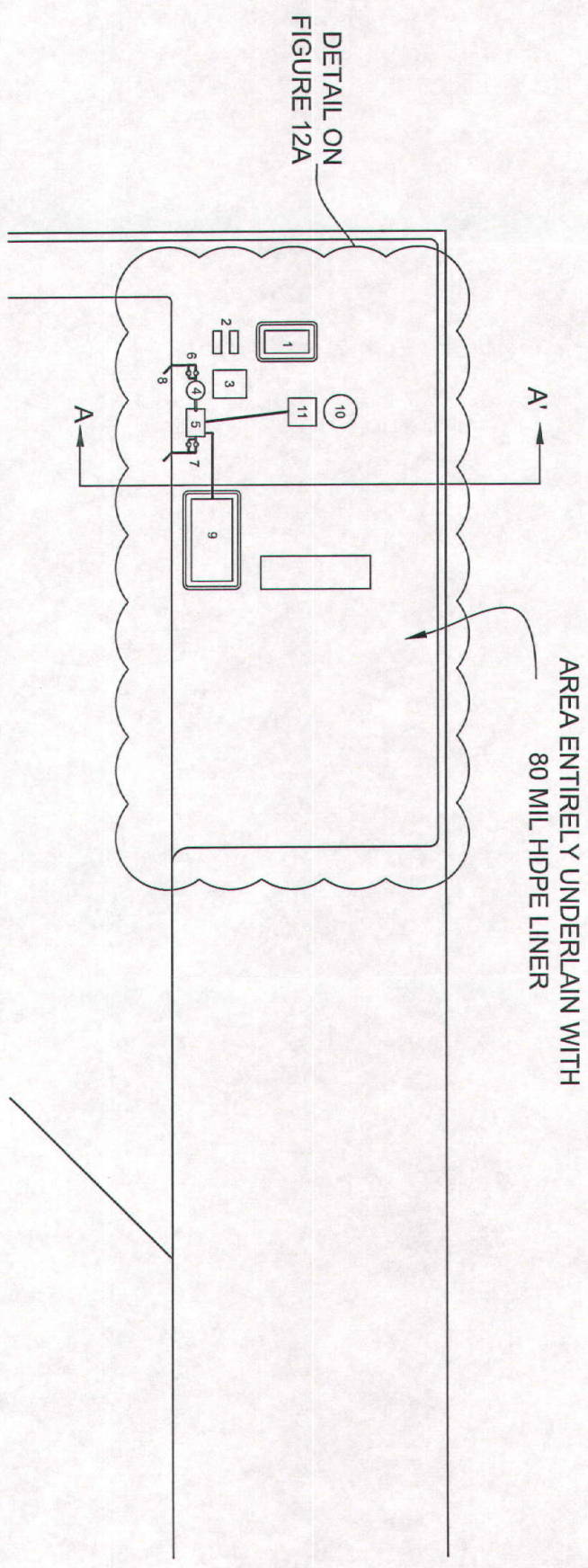
Date: 1/2010 Kiewit_Figure 11_1-2010

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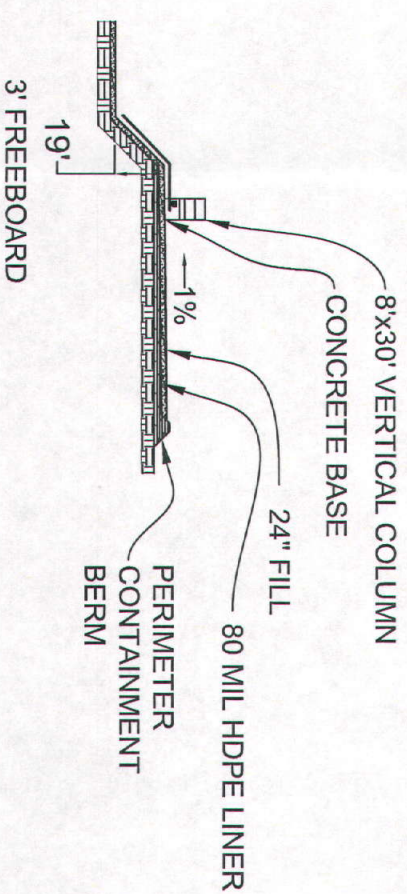
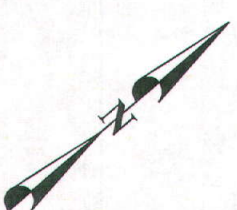




PROCESS AREA PLAN VIEW
1" = 100'



DETAIL A
1" = 60'



DESERT HAWK GOLD CORP
KIEWIT PROJECT
FIGURE 12
PROCESS FACILITIES

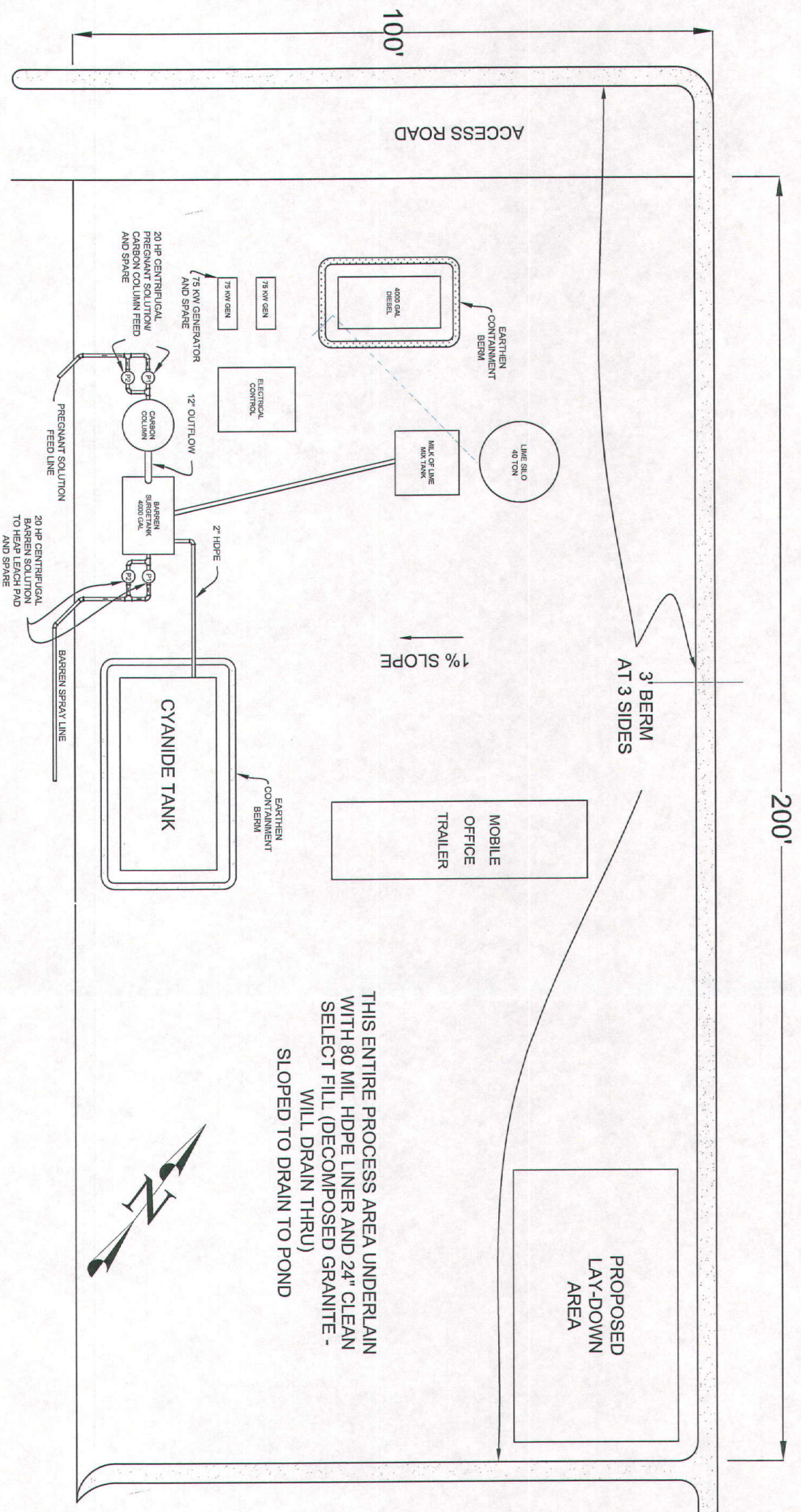
Tooele County, Utah

Date: 1/2010 Kiewit_Figure 12_1-2010

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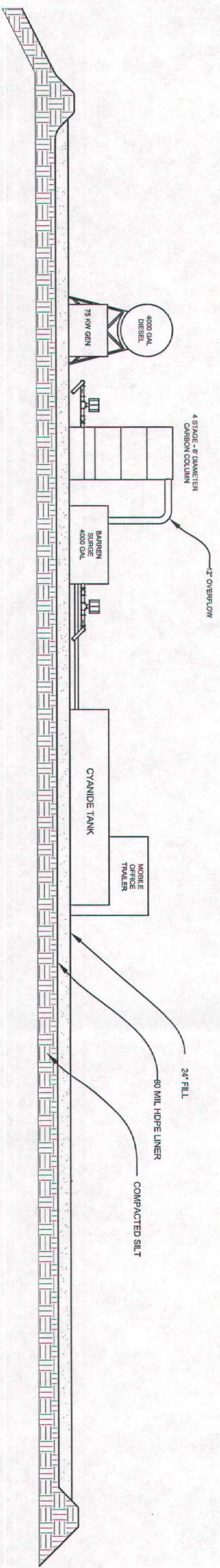




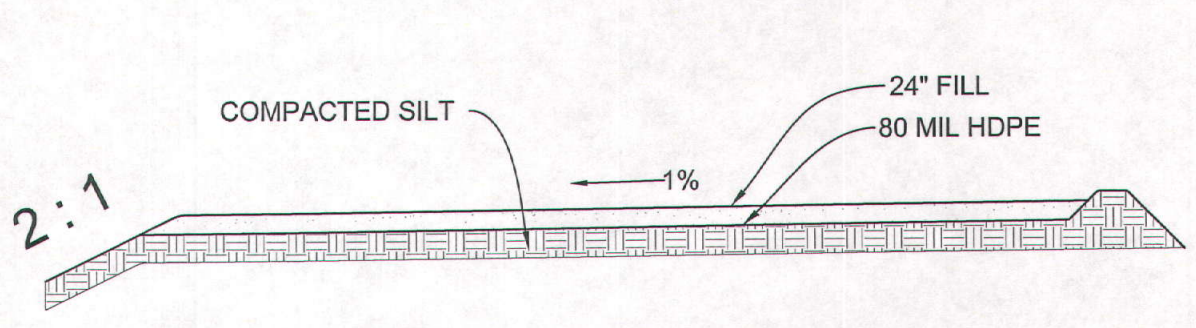
--PLAN VIEW--

THIS ENTIRE PROCESS AREA UNDERLAIN WITH 80 MIL HDPE LINER AND 24" CLEAN SELECT FILL (DECOMPOSED GRANITE - WILL DRAIN THRU) SLOPED TO DRAIN TO POND

--SIDE VIEW--



--SIDE VIEW--



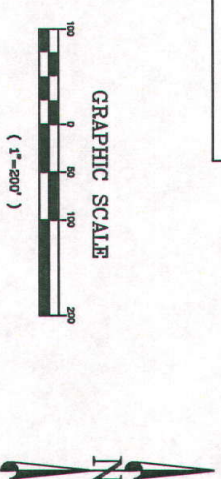
DESERT HAWK GOLD CORP
KIEWIT PROJECT
FIGURE 12A
PROCESS FACILITIES DETAIL

Tooele County, Utah

Date: 1/2010 Kiewit_Figure 12A_1-2010

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DESERT HAWK GOLD CORP
KIEWIT PROJECT
FIGURE 13
HEAP LEACH PAD -
PRE EXISTING TOPOGRAPHY

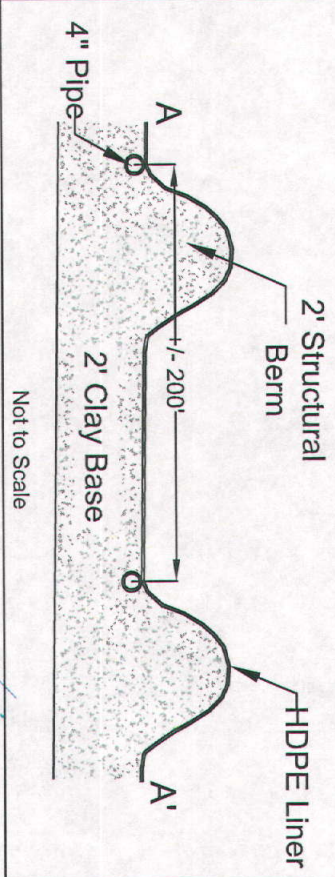
Tooele County, Utah

Date: 1/2010 Kiewit_Figure 13_1-2010

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TYPICAL LEAK DETECTION DETAIL



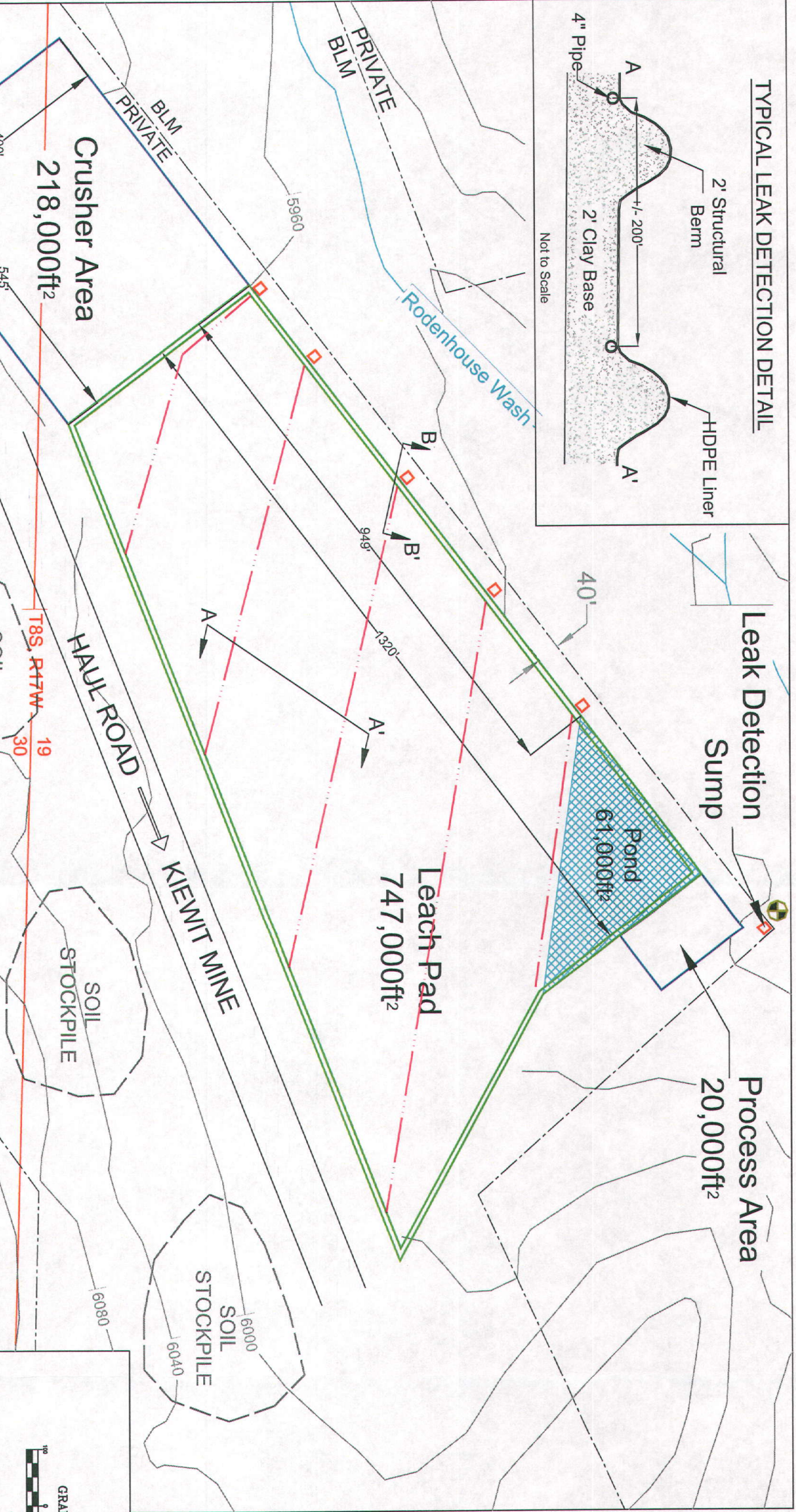
Leak Detection Sump

Process Area

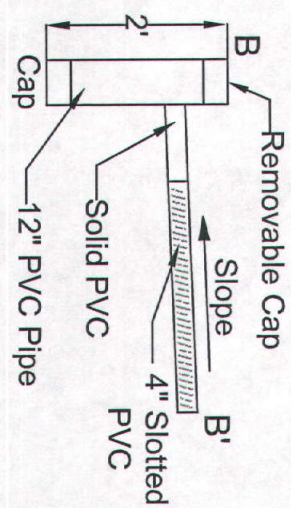
Pond

- 4" Slotted Pipe
- Leak Detection Sump
- Monitor Well

Note: 4" Slotted Pipe are parallel and +/- 200' apart.



LEAK DETECTION SUMP DETAIL



DESERT HAWK GOLD CORP

KIEWIT PROJECT

FIGURE 14

HEAP LEACH PAD - GENERAL LAYOUT

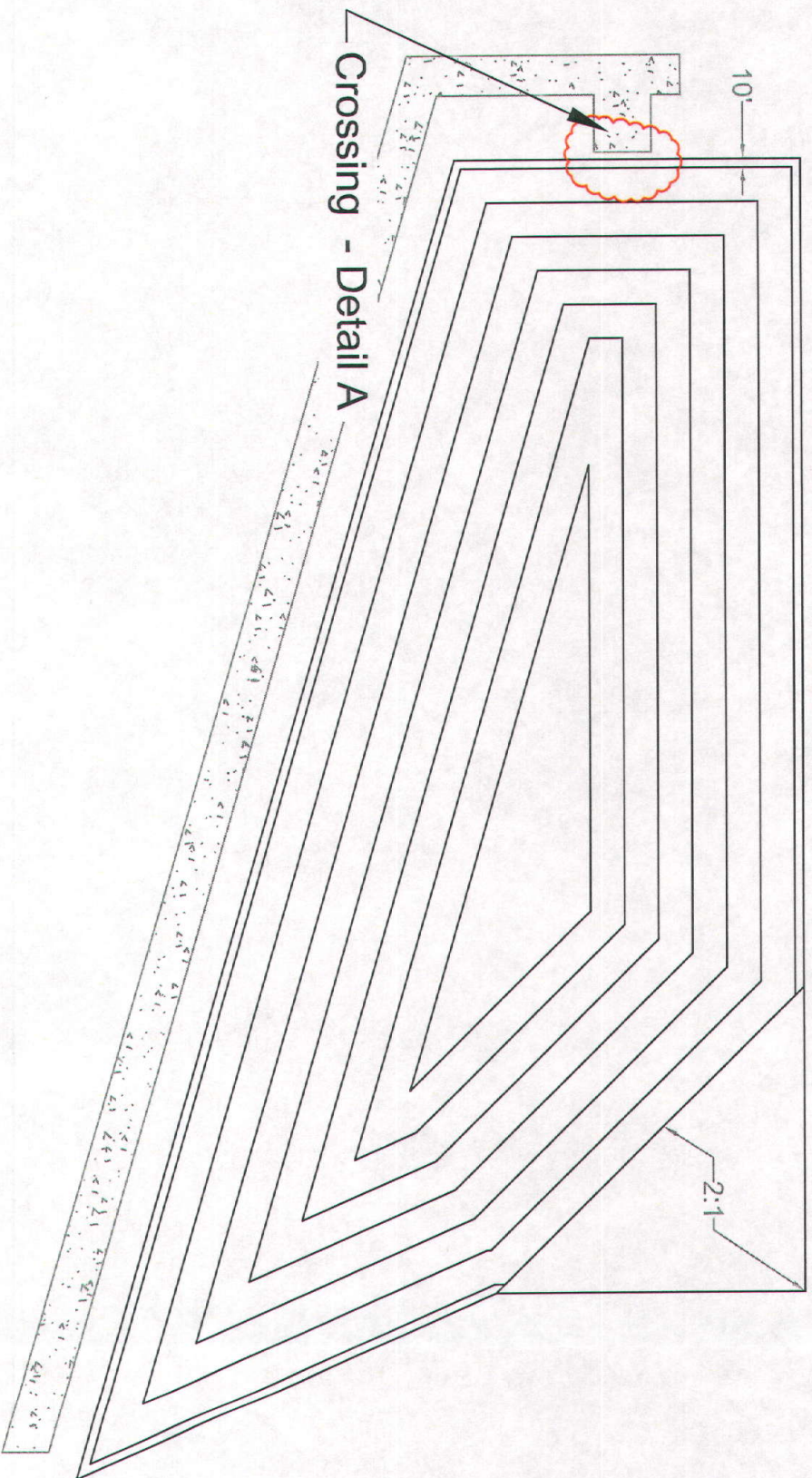
Tooele County, Utah

Date: 1/2010 Kiewit_Figure 14_1-2010

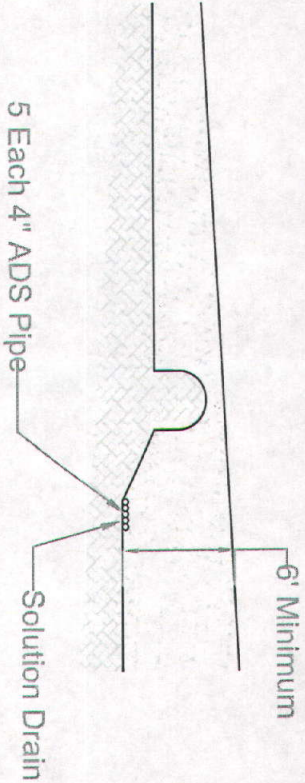
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PLAN VIEW



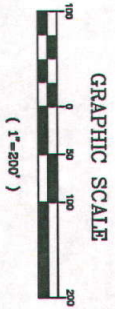
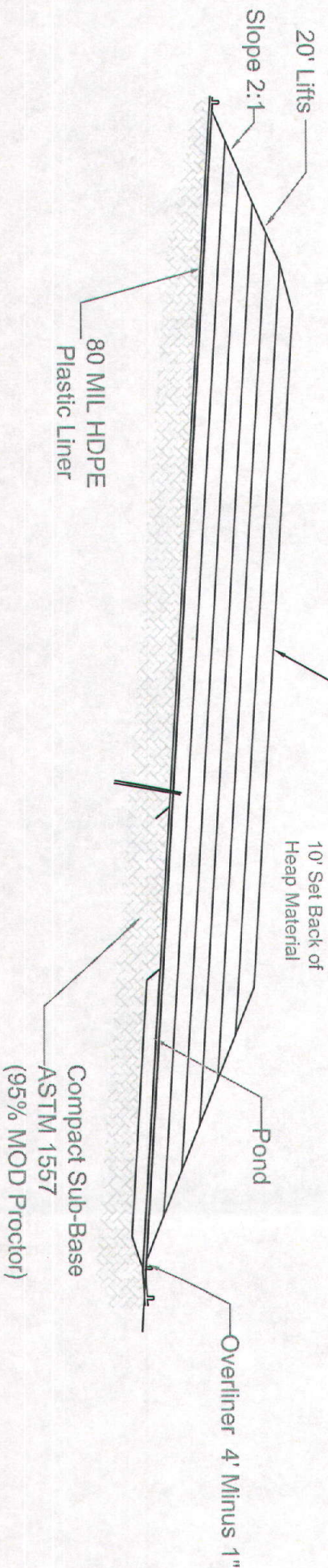
DETAIL A



Notes: Overliner 4' is 1" minus crushed ore.
Subsequent lifts are crushed ore, run of mine,
based on field conditions.

SIDE VIEW

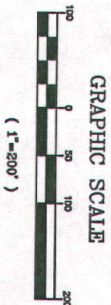
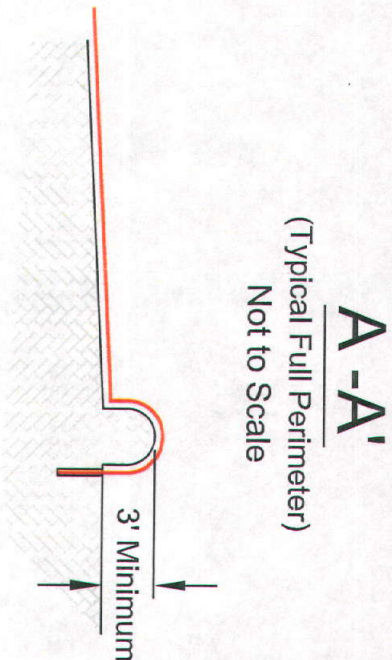
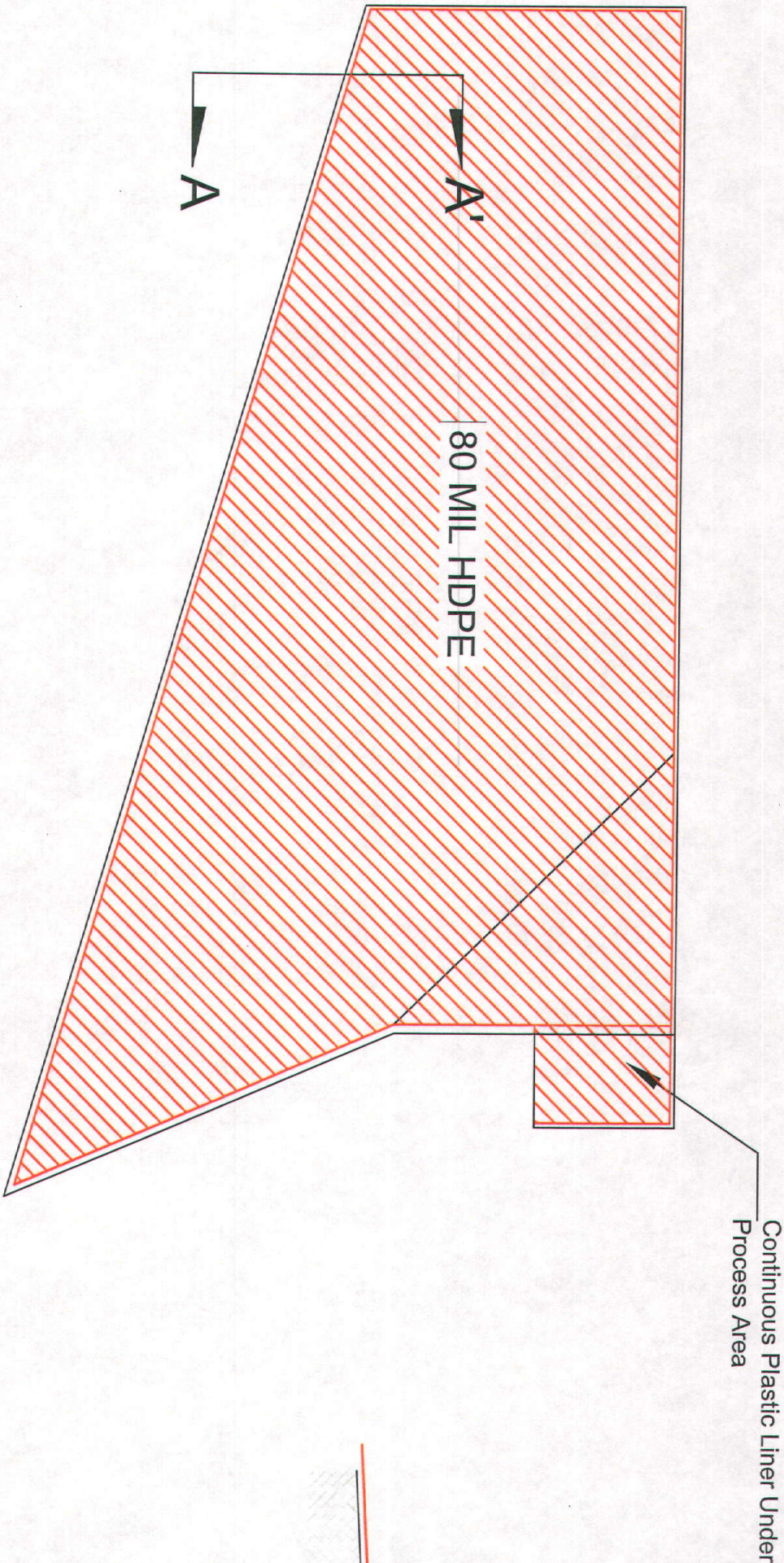
120' Max Height



DESERT HAWK GOLD CORP	
KIEWIT PROJECT	
FIGURE 15	
HEAP LEACH PAD - ORE LOADING	
Tooele County, Utah	
Date: 1/2010	Kiewit_Figure 15_1-2010
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Kaysville, UT 84037	
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PLAN VIEW

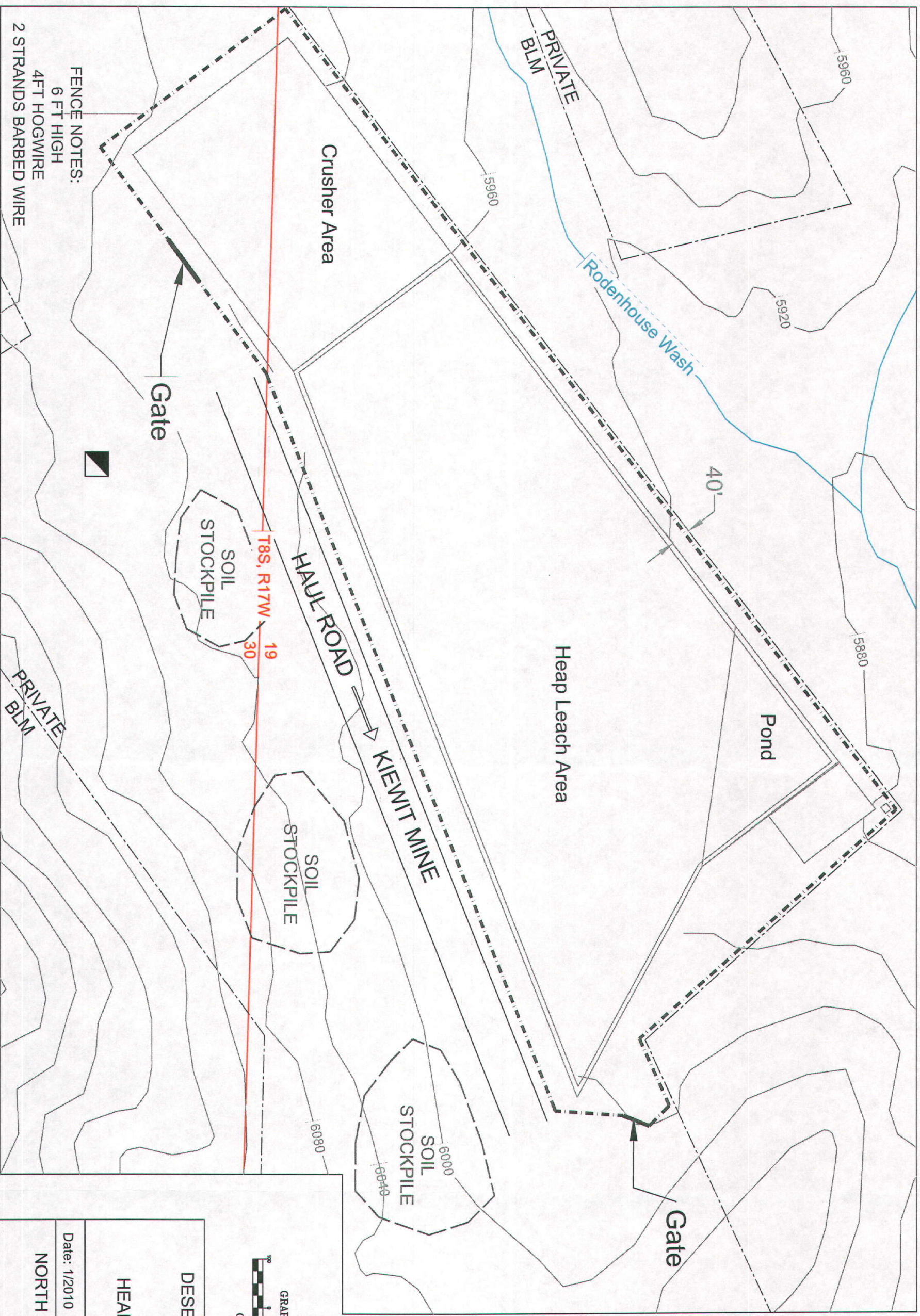


DESERT HAWK GOLD CORP
KIEWIT PROJECT
FIGURE 16
HEAP LEACH PAD - PLASTIC LINER
Tooele County, Utah

Date: 1/2010 Kiewit_Figure 16_1-2010

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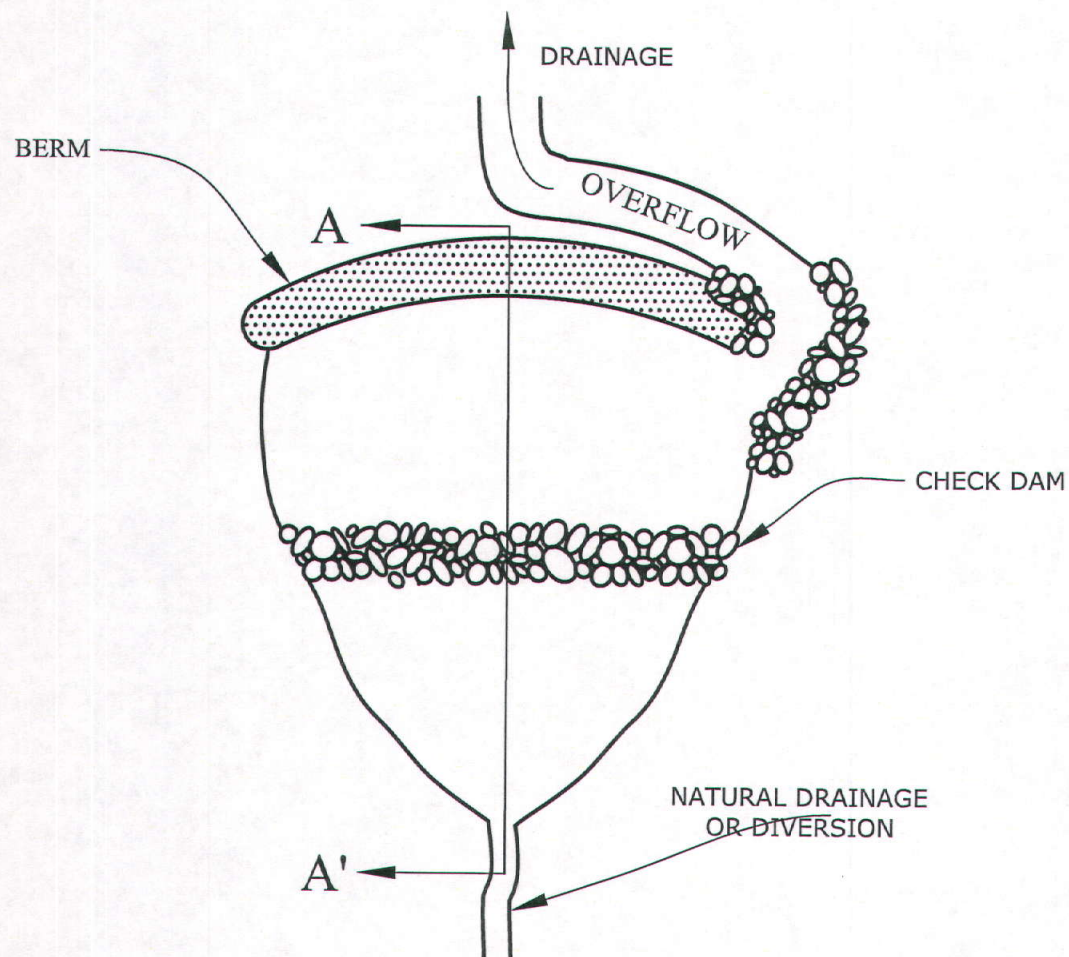
FENCE NOTES:
6 FT HIGH
4FT HOGWIRE
2 STRANDS BARBED WIRE

DESERT HAWK GOLD CORP
KIEWIT PROJECT
FIGURE 17
HEAP LEACH PAD - FENCE
Tooele County, Utah

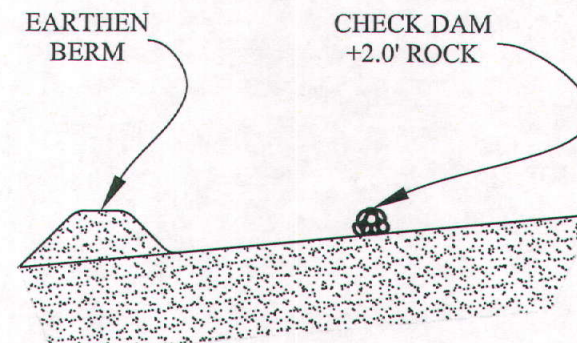
Date: 1/2010 Kiewit_Figure 17_1-2010

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NOT TO SCALE



CROSS SECTION A-A'
NOT TO SCALE

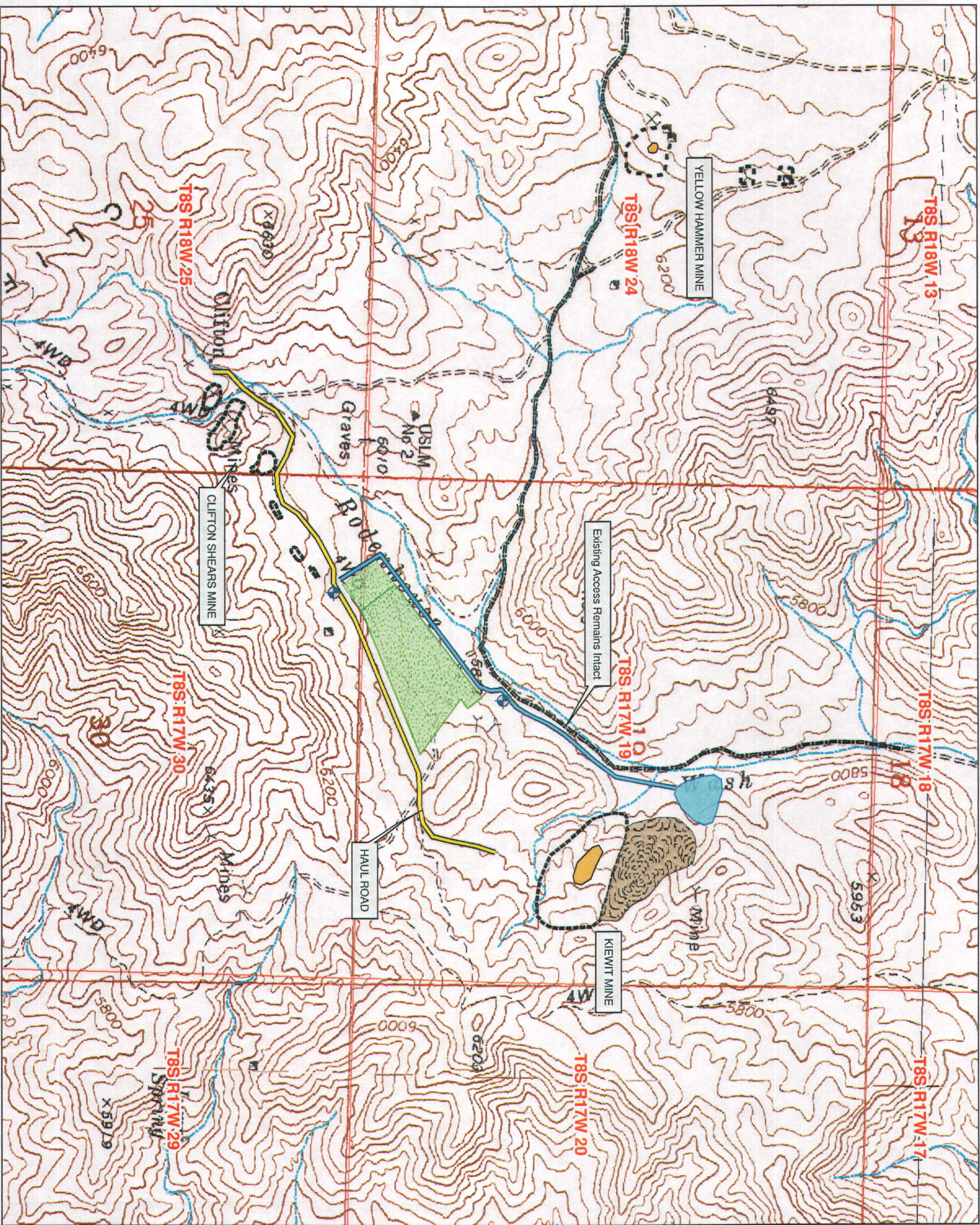
DESERT HAWK GOLD CORP
KIEWIT PROJECT
FIGURE 18
GENERAL SEDIMENT POND LAYOUT

Date: 1/2010

Kiewit_Figure 18_1-2010

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801-544-3421





Legend

- Pit Floor: Grade to 1% slope toward high wall, rip to 24", seed.
- Waste Dumps: Grade to 2H:1V slope or less spread growth medium, rip to 18", seed.
- Pad/ Process Area: Grade and contour to 2H:1V slope or less, replace growth medium, rip to 12", seed.
- Sediment Pond & Ditch: Backfill, rip to 18", seed.
- Haulroad: Replace growth medium, rip to 24", seed.



DESERT HAWK GOLD CORP KIEWIT PROJECT FIGURE 19 RECLAMATION TREATMENTS Tooele County, Utah	
Date: 1/2010	Kiewit_Figure 19_1-2010
NORTH AMERICAN EXPLORATION 447 N 300 W, Suite 3 Kayville, UT 84037 801-544-3421	



APPENDIX I
PHOTOGRAPHS

DESERET HAWK GOLD CORPORATION

Notice of Intention to Conduct Large
Mining Operations

KIEWIT PROJECT

Tooele County, Utah

January 2010



Yellowhammer Pit looking northeast, growth medium stockpile in forefront



Yellowhammer Pit looking northwest



Yellowhammer Pit looking west, growth medium stockpile



Yellowhammer Pit looking northeast



Looking from Yellowhammer mine dump down Rodenhouse Wash towards
leach Pad and Clifton



Current Road to Sites B & C looking northeast



Site C looking from site B northwest

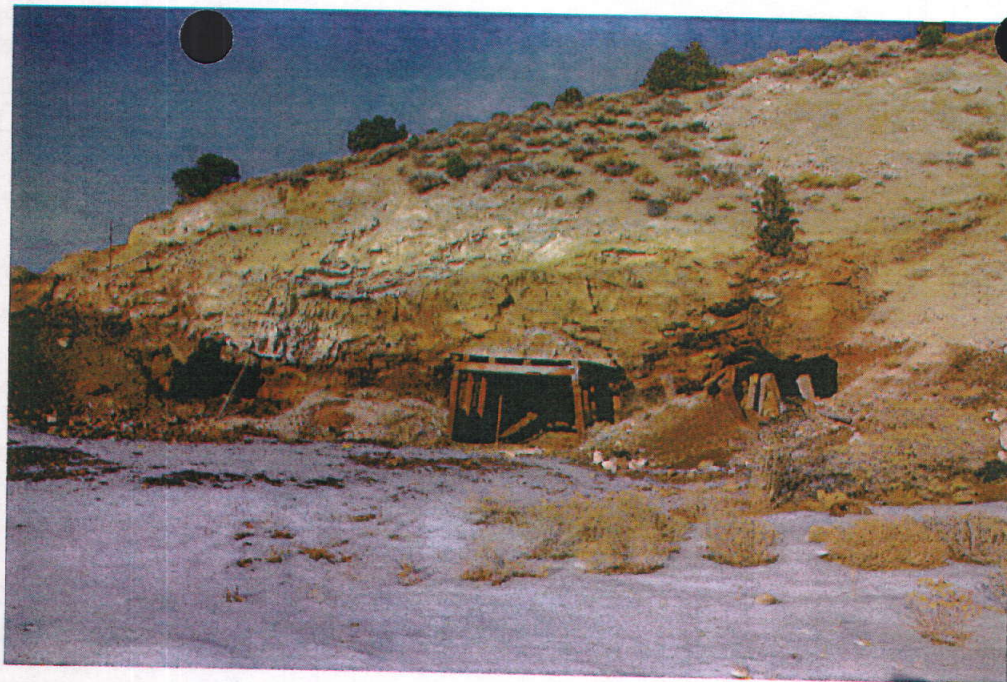
YELLOWHAMMER MINE



Site B looking west



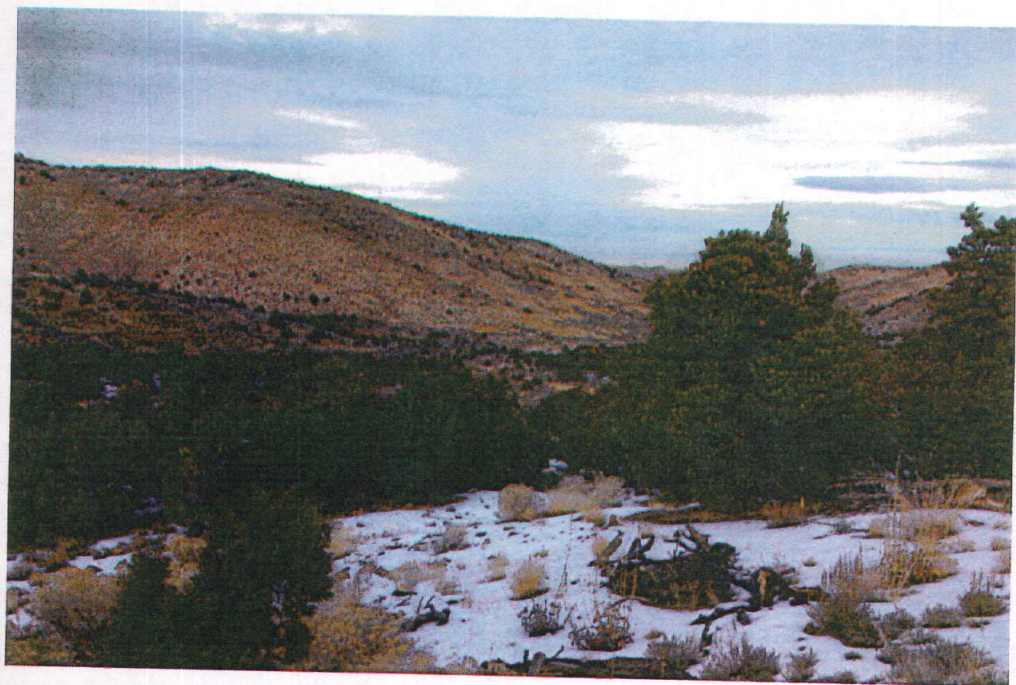
Site B looking South towards Yellowhammer Pit



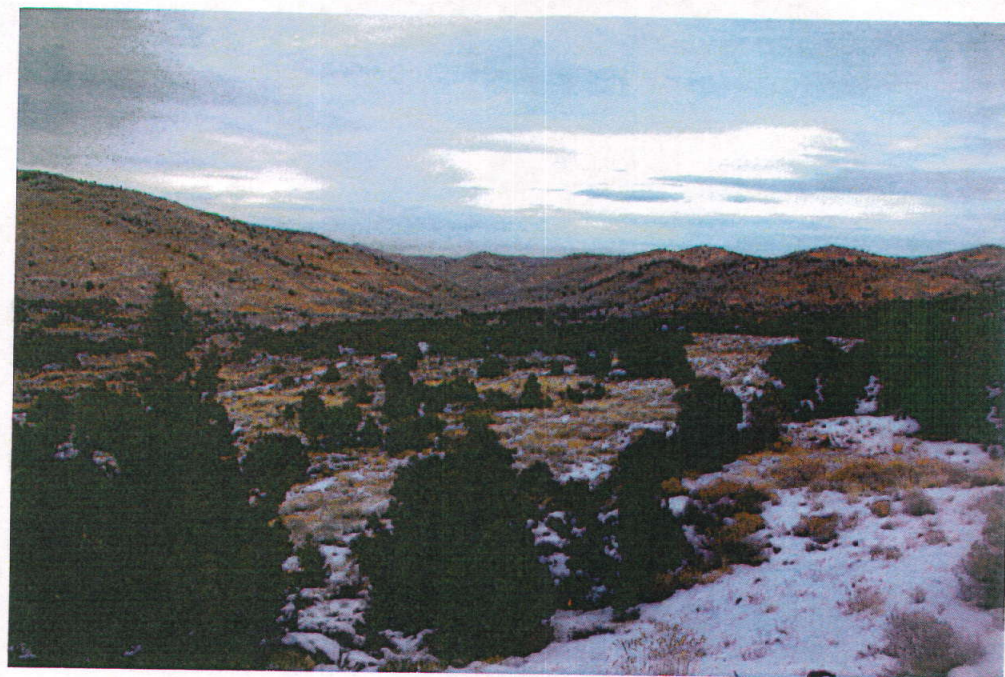
Clifton Shears Historic Workings looking northeast



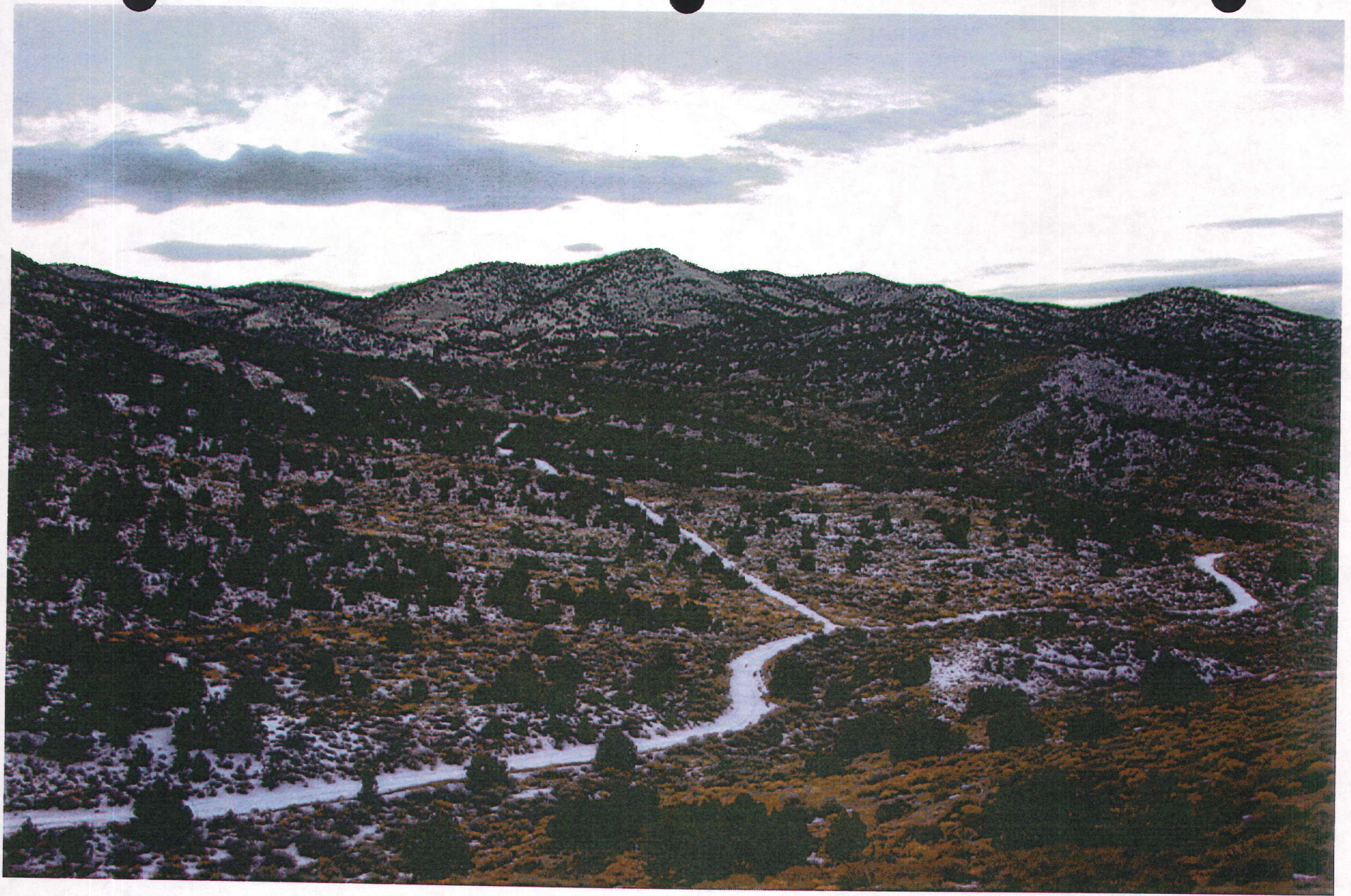
Historic Mine shaft located on SW edge of Kiewit Leach Pad site



Southwest edge of Kiewit Leach Pad looking northeast



Kiewit Leach Pad area looking north



Kiewit Leach Pad area looking southwest



Kiewit Mine Area looking east from Rodenhouse Wash

APPENDIX II
CORPORATE DATA

DESERET HAWK GOLD CORPORATION

Notice of Intention to Conduct Large
Mining Operations

KIEWIT PROJECT

Tooele County, Utah

January 2010



Search all of Utah.gov »

Utah Department of
Commerce

Business Entity Search

[? Help](#)

Name	Type	City	Status
DESERT HAWK GOLD CORP.	Corporation	Spokane	Active
Business Name:	DESERT HAWK GOLD CORP.		
Registration Date:	06/09/2009		
State of Origin:	NV		

Address

8921 N INDIAN TRAIL RD # 288
Spokane, WA 99208

Status

Status:	Active
Status Description:	Good Standing
This Status Date:	06/09/2009
Last Renewed:	N/A
License Type:	Corporation - Foreign - Profit
Delinquent Date:	06/09/2010

Registered Agent

Registered Agent:	RONALD N VANCE
	[Search BES] [Search RPS]
Address Line 1:	1658 REUNION AVE STE 250
Address Line 2:	
City:	South Jordan
State:	UT
Zip:	84095

Additional Information

Duration Time:	PERPETUAL
Incorporated in Home State Date:	
NAICS Code:	9999
NAICS Title:	9999-Nonclassifiable Establishment

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If you would like to view images of paper filings for this business entity, select the button to the left. You will be assessed a \$ 2.00 fee per image of a document for this service.

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APPENDIX III

MINERAL OWNERSHIP DATA

DESERET HAWK GOLD CORPORATION

Notice of Intention to Conduct Large
Mining Operations

KIEWIT PROJECT

Tooele County, Utah

January 2010

RUN TIME

04:42 PM

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RUN DATE:

1/13/2010

Input Parameters for MC Geographic Report

System Id = MC

Admin State = UT

Geo State =

Mer Twp Rng =

Section =

Mtrs = 26 0080S 0170W 019, 26 0080S 0170W 030, 26 0080S 0180W 024, 26 0080S 0180W 025

Adm Agency Begins With

Aliquot Part contains

Case Disp Txt = ACTIVE

Total Rows Returned: 144

NO WARRANTY IS MADE BY BLM
FOR USE OF THE DATA FOR
PURPOSES NOT INTENDED BY BLM

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MINING CLAIM GEOGRAPHIC REPORT
LIST OF MINING CLAIMS BY SECTION

MER TWP RNG SEC
26 0080S 0170W 019

<u>Serial Num</u>	<u>Quad</u>	<u>Claim Name/Number</u>	<u>Claimant(s)</u>	<u>Lead File</u>	<u>Case</u> <u>Type</u>	<u>Status</u>	<u>Loc Dt</u>	<u>Last Assessment</u>
UMC317850	SW SE	CLIFTON # 7	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317851	SW	CLIFTON # 8	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317854	SW	CLIFTON # 11	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317901	SE	IP # 6	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317904	SE	IP # 8	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317906	SE	IP # 10	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317908	SE	IP # 12	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317911	SW SE	IP # 14A	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/17/1988	2010
UMC317913	SW SE	IP # 15	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317915	NE SE	IP # 18	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/17/1988	2010
UMC317916	SE	IP # 19	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317917	NE SE	IP # 20	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/17/1988	2010
UMC317918	SE	IP # 20A	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/17/1988	2010
UMC317919	SE	IP # 21	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317920	NE SE	IP # 22	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/17/1988	2010
UMC317921	SE	IP # 22A	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/17/1988	2010
UMC317922	SE	IP # 23	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317933	NE	IP # 34	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/17/1988	2010
UMC317948	SE	IP # 53	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317949	NE SE	IP # 54	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/17/1988	2010
UMC318048	NE	PEARL # 294	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/17/1988	2010
UMC318049	NE	PEARL # 295	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/17/1988	2010
UMC318050	NE	PEARL # 296	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/17/1988	2010
UMC318076	SW	PEARL # 354	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC318077	SW	PEARL # 355	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC318078	SW	PEARL # 356	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC318079	SW	PEARL # 357	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC369142	NE NW SW SE	IP-14	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/11/2002	2010
UMC369214	NW	PEARL-289	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/12/2002	2010

NO WARRANTY IS MADE BY BLM
FOR USE OF THE DATA FOR
PURPOSES NOT INTENDED BY BLM

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MINING CLAIM GEOGRAPHIC REPORT
LIST OF MINING CLAIMS BY SECTION

<u>Serial Num</u>	<u>Quad</u>	<u>Claim Name/Number</u>	<u>Claimant(s)</u>	<u>Lead File</u>	<u>Case Type</u>	<u>Status</u>	<u>Loc Dt</u>	<u>Last Assessment</u>
UMC369215	NW	PEARL-290	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/11/2002	2010
UMC369216	NW	PEARL-291	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/11/2002	2010
UMC369217	NW	PEARL-292	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/11/2002	2010
UMC369218	NE NW	PEARL-293	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/11/2002	2010
UMC369221	NW SW	PEARL-322	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/12/2002	2010
UMC369222	SW	PEARL-322A	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/12/2002	2010
UMC369223	NW SW	PEARL-323	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/11/2002	2010
UMC369224	NW SW	PEARL-324	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/11/2002	2010
UMC369225	SW	PEARL-325A	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/11/2002	2010
UMC371749	NW SW	PEARL 325	CLIFTON MINING CO	UMC371745	384101	ACTIVE	08/06/2004	2010
UMC406918	SW	CLIFTON PLACER 11	CLIFTON MINING CO	UMC406909	384201	ACTIVE	06/10/2008	2010
UMC406919	SW	CLIFTON PLACER 12	CLIFTON MINING CO	UMC406909	384201	ACTIVE	06/10/2008	2010
UMC406920	SW	CLIFTON PLACER 13	CLIFTON MINING CO	UMC406909	384201	ACTIVE	06/10/2008	2010
UMC406921	SW SE	CLIFTON PLACER 14	CLIFTON MINING CO	UMC406909	384201	ACTIVE	06/10/2008	2010
UMC406922	NW SW	CLIFTON PLACER 15	CLIFTON MINING CO	UMC406909	384201	ACTIVE	06/10/2008	2010
UMC406923	NE NW SW SE	CLIFTON PLACER 16	CLIFTON MINING CO	UMC406909	384201	ACTIVE	06/10/2008	2010
UMC406924	NE NW	CLIFTON PLACER 17	CLIFTON MINING CO	UMC406909	384201	ACTIVE	06/10/2008	2010
UMC406925	NE NW	CLIFTON PLACER 18	CLIFTON MINING CO	UMC406909	384201	ACTIVE	06/10/2008	2010
UMC406926	NE	CLIFTON PLACER 19	CLIFTON MINING CO	UMC406909	384201	ACTIVE	06/10/2008	2010

**MER TWP RNG SEC
26 0080S 0170W 030**

<u>Serial Num</u>	<u>Quad</u>	<u>Claim Name/Number</u>	<u>Claimant(s)</u>	<u>Lead File</u>	<u>Case Type</u>	<u>Status</u>	<u>Loc Dt</u>	<u>Last Assessment</u>
UMC317850	NE NW	CLIFTON # 7	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317851	NW	CLIFTON # 8	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317853	NW	CLIFTON # 10	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317854	NW	CLIFTON # 11	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317857	NW	CLIFTON # 14	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317858	NW	CLIFTON # 15	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317859	NW SW	CLIFTON # 16	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317860	NW	CLIFTON # 17	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317861	NW	CLIFTON # 18	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010

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UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MINING CLAIM GEOGRAPHIC REPORT
LIST OF MINING CLAIMS BY SECTION

<u>Serial Num</u>	<u>Quad</u>	<u>Claim Name/Number</u>	<u>Claimant(s)</u>	<u>Lead File</u>	<u>Case Type</u>	<u>Status</u>	<u>Loc Dt</u>	<u>Last Assessment</u>
UMC317862	NW	CLIFTON # 19	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317863	NE NW	CLIFTON # 20	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317864	NW SW	CLIFTON # 21	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317865	NW SW	CLIFTON # 22	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317866	SW	CLIFTON # 23	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317868	SW	CLIFTON # 27	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317869	SW	CLIFTON # 27A	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317870	SW	CLIFTON # 28	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317871	SW	CLIFTON # 29	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317872	SW	CLIFTON # 30	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317901	NE	IP # 6	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317903	NE	IP # 7A	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317904	NE	IP # 8	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317905	NE	IP # 9	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317906	NE	IP # 10	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317907	NE	IP # 11	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317908	NE	IP # 12	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317909	NE	IP # 13	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317936	NE SE	IP # 39	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317937	SW SE	IP # 40	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317938	NE SE	IP # 41	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317940	NE SE	IP # 43	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317942	NE SE	IP # 45	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317945	NE SE	IP # 47A	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC406916	SE	CLIFTON PLACER 8	CLIFTON MINING CO	UMC406909	384201	ACTIVE	06/10/2008	2010

MER TWP RNG SEC
26 0080S 0180W 024

<u>Serial Num</u>	<u>Quad</u>	<u>Claim Name/Number</u>	<u>Claimant(s)</u>	<u>Lead File</u>	<u>Case Type</u>	<u>Status</u>	<u>Loc Dt</u>	<u>Last Assessment</u>
UMC317838	NW SW	CENTENNIAL FRAC	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/17/1988	2010
UMC317855	SE	CLIFTON # 12	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317878	SW SE	FLAT # 309	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010

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UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MINING CLAIM GEOGRAPHIC REPORT
LIST OF MINING CLAIMS BY SECTION

<u>Serial Num</u>	<u>Quad</u>	<u>Claim Name/Number</u>	<u>Claimant(s)</u>	<u>Lead File</u>	<u>Case Type</u>	<u>Status</u>	<u>Loc Dt</u>	<u>Last Assessment</u>
UMC318075	SE	PEARL # 353	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC335440	SW	FLAT # 309A	CLIFTON MINING CO	UMC335440	384101	ACTIVE	06/10/1990	2010
UMC355792	NW	CGC # 12	CLIFTON MINING CO	UMC355781	384101	ACTIVE	10/19/1994	2010
UMC355840	SW	CGC # 299	CLIFTON MINING CO	UMC355781	384101	ACTIVE	10/19/1994	2010
UMC355841	SW	CGC # 299A	CLIFTON MINING CO	UMC355781	384101	ACTIVE	10/19/1994	2010
UMC355842	SW	CGC # 300	CLIFTON MINING CO	UMC355781	384101	ACTIVE	10/19/1994	2010
UMC355843	SW	CGC # 301	CLIFTON MINING CO	UMC355781	384101	ACTIVE	10/19/1994	2010
UMC355844	SW	CGC # 301A	CLIFTON MINING CO	UMC355781	384101	ACTIVE	10/19/1994	2010
UMC369120	SW	CGC-302	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/13/2002	2010
UMC369132	NE	FLAT-293	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/13/2002	2010
UMC369133	NE	FLAT-294	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/13/2002	2010
UMC369134	NE	FLAT-295	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/13/2002	2010
UMC369135	NE SE	FLAT-296	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/13/2002	2010
UMC369136	NE SE	FLAT-297	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/13/2002	2010
UMC369213	NE	PEARL-288	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/13/2002	2010
UMC369219	NE SE	PEARL-321	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/12/2002	2010
UMC369220	SE	PEARL-321A	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/12/2002	2010
UMC369285	NE NW	FLAT 501	CLIFTON MINING CO	UMC369258	384101	ACTIVE	01/02/2003	2010
UMC406918	SE	CLIFTON PLACER 11	CLIFTON MINING CO	UMC406909	384201	ACTIVE	06/10/2008	2010

**MER TWP RNG SEC
26 0080S 0180W 025**

<u>Serial Num</u>	<u>Quad</u>	<u>Claim Name/Number</u>	<u>Claimant(s)</u>	<u>Lead File</u>	<u>Case Type</u>	<u>Status</u>	<u>Loc Dt</u>	<u>Last Assessment</u>
UMC317852	NE	CLIFTON # 9	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317853	NE	CLIFTON # 10	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317855	NE	CLIFTON # 12	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317856	NE	CLIFTON # 13	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317857	NE	CLIFTON # 14	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317867	SE	CLIFTON # 26	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317878	NE NW	FLAT # 309	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317879	NE	FLAT # 310	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317880	NE	FLAT # 311	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010

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BUREAU OF LAND MANAGEMENT
MINING CLAIM GEOGRAPHIC REPORT
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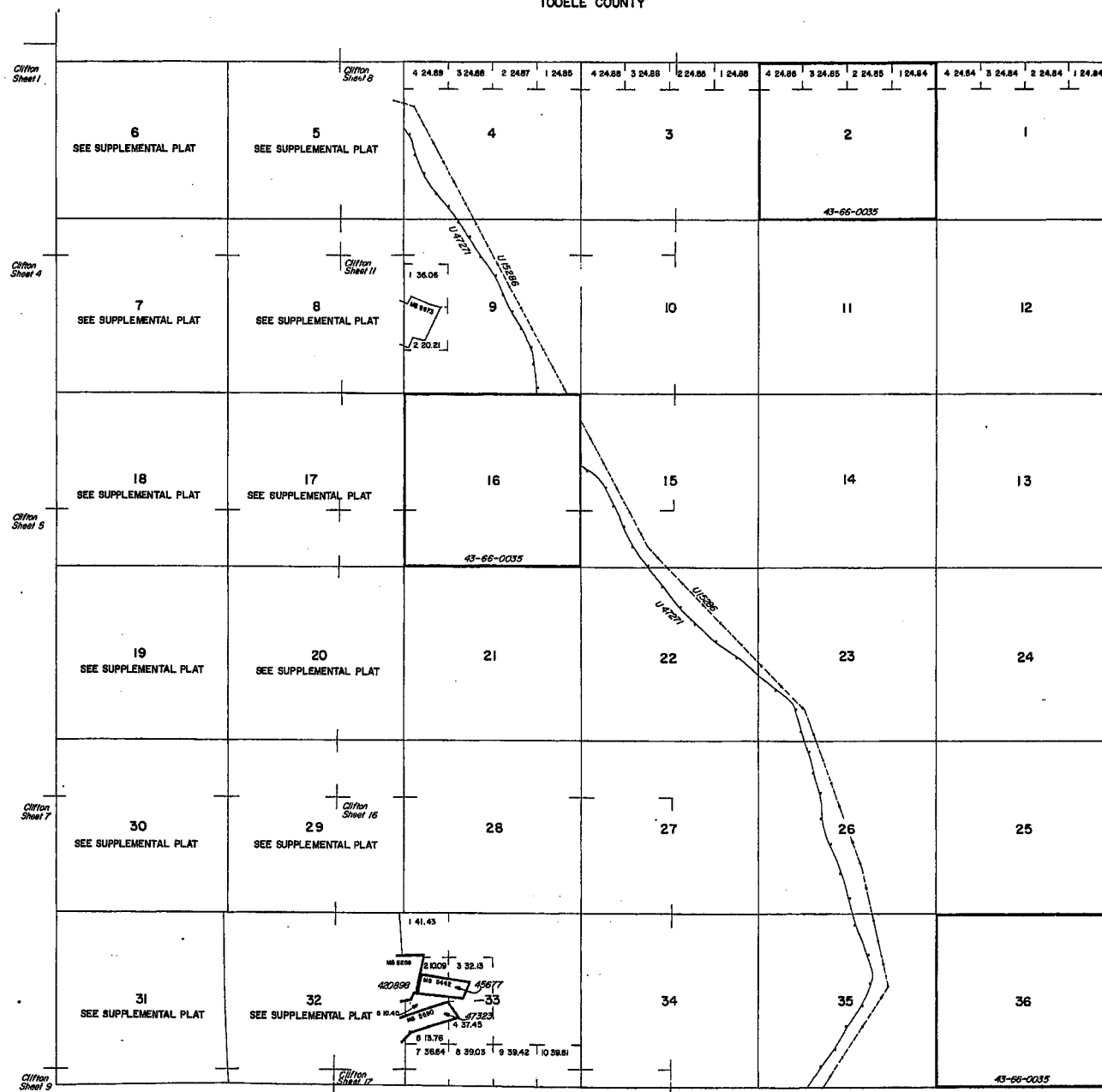
<u>Serial Num</u>	<u>Quad</u>	<u>Claim Name/Number</u>	<u>Claimant(s)</u>	<u>Lead File</u>	<u>Case Type</u>	<u>Status</u>	<u>Loc Dt</u>	<u>Last Assessment</u>
UMC317881	NE	FLAT # 312	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317882	NE	FLAT # 313	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317883	NE NW	FLAT # 314	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317884	NE NW SW SE	FLAT # 323	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317885	NE SE	FLAT # 324	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317887	NE SE	FLAT # 326	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317888	SE	FLAT # 326A	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317889	SE	FLAT # 327	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317890	SE	FLAT # 328	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317891	SE	FLAT # 329	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC317892	SW SE	FLAT # 330	CLIFTON MINING CO	UMC317836	384101	ACTIVE	10/24/1988	2010
UMC335440	NW	FLAT # 309A	CLIFTON MINING CO	UMC335440	384101	ACTIVE	06/10/1990	2010
UMC335441	NW	FLAT # 314A	CLIFTON MINING CO	UMC335440	384101	ACTIVE	06/10/1990	2010
UMC335442	NW SW	FLAT # 323A	CLIFTON MINING CO	UMC335440	384101	ACTIVE	06/10/1990	2010
UMC335443	SW	FLAT # 330A	CLIFTON MINING CO	UMC335440	384101	ACTIVE	06/10/1990	2010
UMC355843	NW	CGC # 301	CLIFTON MINING CO	UMC355781	384101	ACTIVE	10/19/1994	2010
UMC355844	NW	CGC # 301A	CLIFTON MINING CO	UMC355781	384101	ACTIVE	10/19/1994	2010
UMC355849	NW	CGC # 308	CLIFTON MINING CO	UMC355781	384101	ACTIVE	10/19/1994	2010
UMC355850	NW SW	CGC # 315	CLIFTON MINING CO	UMC355781	384101	ACTIVE	10/19/1994	2010
UMC355857	SW	CGC # 322	CLIFTON MINING CO	UMC355781	384101	ACTIVE	10/19/1994	2010
UMC355858	SW	CGC # 331	CLIFTON MINING CO	UMC355781	384101	ACTIVE	10/19/1994	2010
UMC369120	NW	CGC-302	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/13/2002	2010
UMC369121	NW	CGC-305	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/13/2002	2010
UMC369122	NW	CGC-306	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/13/2002	2010
UMC369123	NW	CGC-307	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/13/2002	2010
UMC369124	NW SW	CGC-316	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/13/2002	2010
UMC369125	NW SW	CGC-317	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/13/2002	2010
UMC369126	NW SW	CGC-318	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/13/2002	2010
UMC369127	SW	CGC-319	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/13/2002	2010
UMC369128	SW	CGC-320	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/13/2002	2010
UMC369129	SW	CGC-321	CLIFTON MINING CO	UMC369089	384101	ACTIVE	12/13/2002	2010

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SALT LAKE DISTRICT 020
TOOELE COUNTY

[illegible]

FOR ORDERS EFFECTING DISPOSAL OR USE OF
UNIDENTIFIED LANDS WITHDRAWN FOR CLASSIFICATION
MINERALS, WATER AND/OR OTHER PUBLIC PURPOSES,
REFER TO INDEX OF MISCELLANEOUS DOCUMENTS.



— Lat 40° 04' 47.8" N
Long 113° 42' 01.9" W

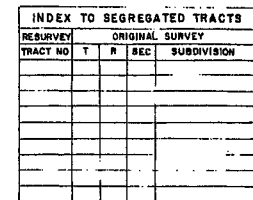
152

T B S
R I 7 W

[illegible]

SALT LAKE DISTRICT 020
TOOELE COUNTY

SUPL 29,30,31,32



FOR ORDERS EFFECTING DISPOSAL OR USE OF
UNIDENTIFIED LANDS WITHDRAWN FOR CLASSIFICATION,
MINERALS, WATER AND/OR OTHER PUBLIC PURPOSES,
REFER TO INDEX OF MISCELLANEOUS DOCUMENTS.

[illegible]

T 8 S
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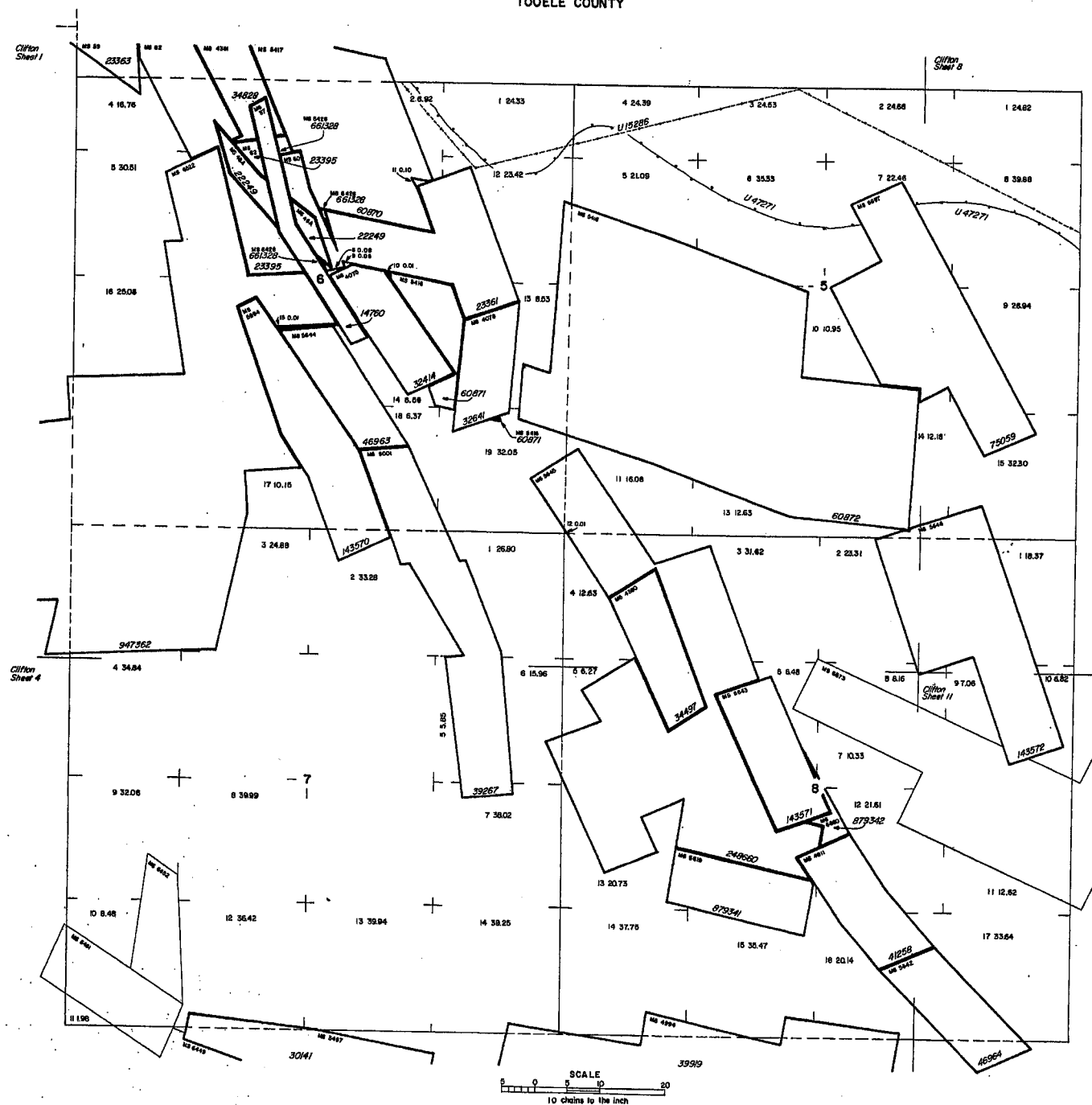
REF 3/83 MAC 10 719C & 77 MG61014

TOOELE COUNTY

SUPL 5,6,7,8

[illegible]

FOR ORDERS EFFECTING DISPOSAL OR USE OF
UNIDENTIFIED LANDS WITHDRAWN FOR CLASSIFICATION,
MINERALS, WATER AND/OR OTHER PUBLIC PURPOSES,
REFER TO INDEX OF MISCELLANEOUS DOCUMENTS.

[illegible]

TOWNSHIP 8 SOUTH RANGE 17 WEST OF THE SALT LAKE MERIDIAN, UTAH

SALT LAKE DISTRICT 020

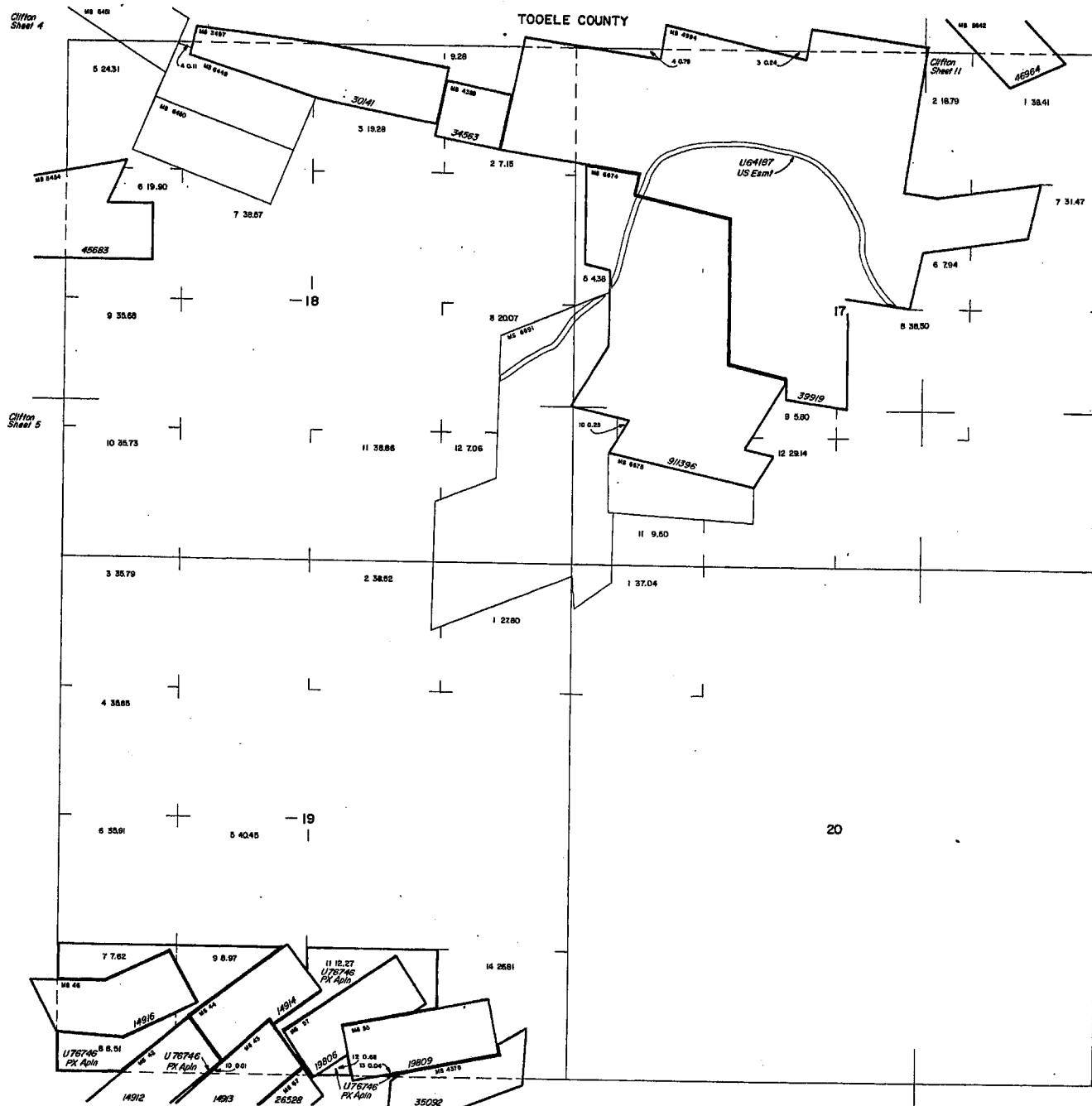
TOOELE COUNTY

STATUS OF PUBLIC DOMAIN LAND AND MINERAL TITLES

SUPL 17,18,19,20

[illegible]

FOR ORDERS EFFECTING DISPOSAL OR USE OF
UNIDENTIFIED LANDS WITHDRAWN FOR CLASSIFICATION,
MINERALS, WATER AND/OR OTHER PUBLIC PURPOSES,
REFER TO INDEX OF MISCELLANEOUS DOCUMENTS.



SCALE

5 10 20

10 chains to the inch

[illegible]

SALT LAKE FIELD OFFICE
TOOELE COUNTY

[illegible]

Blank lined paper.



WARNING STATEMENT

This plot is the Bureau's Record of Title, and should be used only as a graphic display of the township survey data. Records hereon do not reflect title changes which may have been effected by lateral movements of rivers or other bodies of water. Refer to the cadastral surveys for official survey information.

CURRENT TO		
6-5-2007	PV	VJ T 8 S
	MTP, OG	R 18 W

APPENDIX IV

HERAT AND YELLOW HAMMER SMALL MINE PERMITS

DESERET HAWK GOLD CORPORATION

Notice of Intention to Conduct Large
Mining Operations

KIEWIT PROJECT

Tooele County, Utah

January 2010

For Division Use:

File No.: SM/045/023

DOGM Lead: Files

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
(801) 538-5340

RECEIVED
MAR 21 1988

DIVISION OF
OIL, GAS & MINING

NOTICE OF INTENTION TO COMMENCE SMALL MINING OPERATIONS

The informational requirements of this form are based on provisions of the Mined Land Reclamation Act, Title 40-8, Utah Code Annotated 1953, as amended, and the General Rules as promulgated under the Utah Minerals Regulatory Program.

"Small Mining Operations" means mining operations which disturb five or less surface acres at any given time.

I. GENERAL INFORMATION (Rule R613-003-104)

1. Name of Claim/Mine: Herat Mine
2. Name of Company/Operator: American Consolidated Mining Co.
3. Address: 405 So 100 E Suite 101
City: PG State: UT Zip Code: 84062
Telephone Number: (801) 785-7536

4. Ownership of Land Surface:

Private (Fee) ☒ Public Domain (BLM) ☐ National Forest (USFS) ☐

State of Utah ☐ Other: _____

5. Ownership of Minerals:

Private (Fee) ☒ Public Domain (BLM) ☐ National Forest (USFS) ☐

State of Utah ☐ Other: _____

Utah Mining Claim Number(s) patent Survey Number 39

Utah State Lease Number(s) —

6. Have the above owners been notified in writing? Yes ☒ No ☐
If no, why not? _____

7. Does the operator have legal right to enter and conduct mining operations on the land covered by this notice? Yes ☒ No ☐

II. PROJECT LOCATION & MAP (Rule R613-003-105)

1. Project Location:

County(ies): Tooele County

1/4, 1/4: <u>NE</u>	Section: <u>25th</u>	Township: <u>8 S.</u>	Range: <u>18 W.</u>
1/4, 1/4: _____	Section: _____	Township: _____	Range: _____
1/4, 1/4: _____	Section: _____	Township: _____	Range: _____

2. A topographic base map showing the location of the proposed exploration project must be submitted with this notice. A USGS 7.5 minute series map is preferred. The areas to be disturbed should be plotted in sufficient detail so that they can be located on the ground. It is recommended that the operator also plot and label any previous disturbances in the immediate vicinity that he is not responsible for.

III. OPERATION PLAN (Rule R613-003-106)

1. Type of mining: Surface ☒ Underground ☐

2. Mineral(s) to be mined: Ag, Au

3. Provide a brief description of the proposed mining operation and onsite processing facilities. Bulk sampling -

New Road(s): Length None (ft) Width None (ft)

Total project acreage to be disturbed < 5 (acres)

IV. OPERATION AND RECLAMATION PRACTICES (Rule R613-003-107 & 108)

The reclamation and operation obligation is to keep the area clean and safe, minimize hazards to public safety, return the land to a useful condition, and reestablish at least 70 percent of the premining vegetative ground cover. To accomplish this, the operator will need to perform reclamation concurrently, or at the completion (within one (1) year) of mining:

1. Keep the mining operation in a safe, clean, and environmentally stable condition.
2. Permanently seal all shafts and tunnels to prevent unauthorized or accidental entry.
3. Plug or cap all drill holes.
4. Construct berms, fences, or barriers, when needed, above highwalls and excavations.
5. Remove, isolate, or neutralize all toxic materials in a manner compatible with federal and state regulations.
6. Remove all waste or debris from stream channels.
7. Dispose of any trash, scrap metal, wood, machinery, and buildings.
8. Conduct mining activities so as to minimize erosion and control sediment.
9. Reclaim all roads that are not part of a permanent transportation system.
10. Stockpile topsoil and suitable overburden prior to mining.
11. Stabilize highwalls by backfilling or rounding to 45 degrees or less, where feasible; reshape the land to near its original contour, and redistribute the topsoil and suitable overburden.
12. Properly prepare seedbed to a depth of six inches by ripping, discing, or harrowing.
13. Reseed disturbed areas with adaptable species. (The Division recommends seeding 20 lbs./acre of native and introduced species of grass, forb, and browse seed, and will provide a specific species list if requested.)
14. Plant the seed with a rangeland or farm drill, or if broadcast seeded, harrow or rake the seed 1/4-1/2 inch into the soil - fall is the preferred time to seed. (The Division also recommends broadcast fertilization at the time of seeding of 200 lbs./acre of diammonium phosphate 18-46-0.)

V. VARIANCE REQUEST (Rule R613-003-109)

Yes ☐ No ☒

Any planned deviations from Rules R613-003-107, Operation Practices, R613-003-108, Hole Plugging Requirements, or R613-003-109, Reclamation Practices, as summarized above, should be identified below and justification given for the variance request(s).

Items Numbers

Variance Request Justification

VI. SIGNATURE REQUIREMENT

I hereby commit to the reclamation of the aforementioned Small Mining Operation as required by the Utah Mined Land Reclamation Act (40-8) and rules specified by the Board of Oil, Gas and Mining.

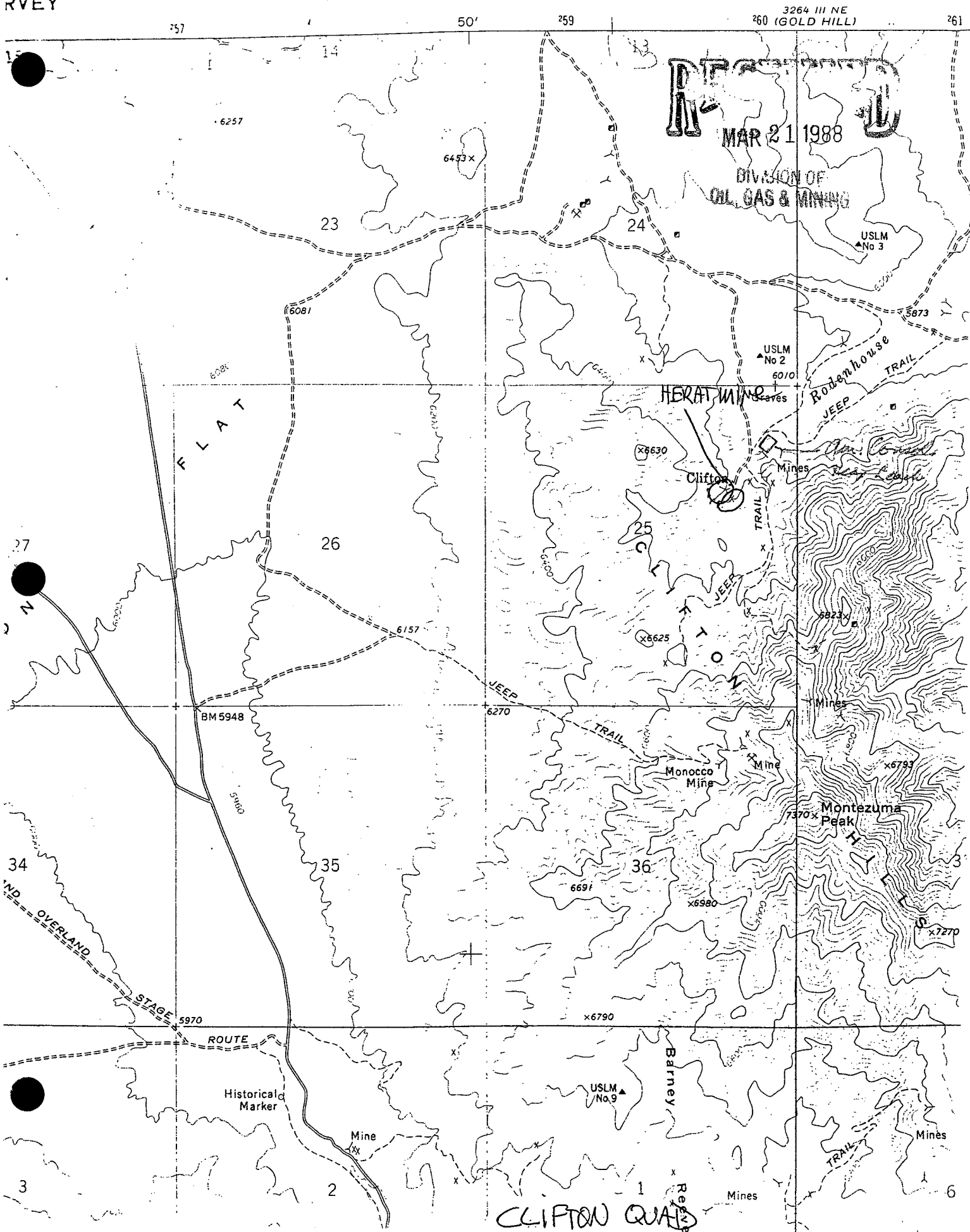
Name of Company/Operator: American Consolidated Mining Co

Signature: William B. Smith

Date: 3/20/86

Title:

Chasman





JON M. HUNTSMAN JR.
Governor
MICHAEL R. STYLER
Executive Director
JOHN R. BAZA
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

CLIFTON MINING CO
80 W CANYON CREST RD, STE D
ALPINE UT 84004

ATTENTION: KEITH MOELLER

ANNUAL PERMIT FEE

Annual Permit Fees for July 2009 thru June 2010

SITE NAME	PERMIT ID	ACRES	BILLING DATE
HERAT MINE	S450023	NA	06/20/2009
PERMIT TYPE	PERMIT STATUS	ANNUAL FEE	
SMALL MINING OPERATION < 5 ACRES	INACTIVE	\$ 150	

DUE DATE	AMOUNT DUE
07/25/2009	\$ 150

Please retain this portion for your records. For billing information call (801) 538-5291

This portion **MUST** be returned with your payment to ensure proper credit. **THANK YOU**

ACCOUNT BILLED	PROJECT NAME	PERMIT ID
CLIFTON MINING CO	HERAT MINE	S450023
DUE DATE	ANNUAL FEE	AMOUNT DUE
07/25/2009	\$ 150	\$ 150

☐ FEE ENCLOSED ☐ FEE NOT ENCLOSED*

Approval to mine or conduct exploration is automatically withdrawn if annual permit fees are not paid by the date due.

DIVISION OF OIL GAS AND MINING
1594 WEST NORTH TEMPLE SUITE 1210
PO BOX 145801
SALT LAKE CITY UT 84114-5801

If reclamation is complete, please submit form MR-SITE to request either a full or partial release. The permit fee is not required if the entire site has been regraded and seeded; The Division will verify the reclamation work.
Forms and other permit-related information are available on the Web at <http://ogm.utah.gov/minerals> or you can call (801) 538-5291 for more information.

0001

Please make check payable to:
Division of Oil, Gas and Mining

Assigned DOGM File No.: S 0450076
DOGM Lead: Leslie Hepler
Permit Fee \$ 150.00 Ck# 10610

Task ID# 3072

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1594 West North Temple Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
Telephone: (801) 538-5291 Fax: (801) 359-3940

NOTICE OF INTENTION TO COMMENCE SMALL MINING OPERATIONS

The informational requirements of this form are based on provisions of the Mined Land Reclamation Act, Title 40-8, Utah Code Annotated 1987, and the General Rules as promulgated under the Utah Minerals Regulatory Program.

"Small Mining Operations" mining operations which have a disturbed area of five or less surface acres at any time.

I. **GENERAL INFORMATION** (Rule R647-3-104)

1. Name of Mine: YELLOW HAMMER

2. Legal name of entity (or individual) for whom the permit is being requested: _____

DESERT HAWK GOLD CORP.

Mailing Address: 8921 N. INDIAN TRAIL RD - SUITE 288

City, State, Zip: SPOKANE WA 99208

Phone: 509-467-8204 Fax: 509-468-1937

E-mail Address: Bjorg53@yahoo.com

Type of Business: Corporation (☒) LLC () Sole Proprietorship (dba) ()

Partnership () General _____ or _____ limited

Or:

Individual ()

Entity must be registered (and maintain registration) with the State of Utah, Division of Corporations (DOC) www.commerce.utah.gov.

Are you currently registered to do business in the State of Utah? ☒ Yes ☐ No

Entity # 7378396-0143

If no, contact www.commerce.utah.gov to renew or apply.

Local Business License # N/A & PER PATRICIA WEBBER
Issued by: County _____ or City TOOELE CO. CLERK'S OFFICE

3. **Contact Person(s)**

Name: RICK HAVENSTRITE Title: PRESIDENT

Address: 1290 HOLCOMB AVE

City, State, Zip: RENO NEV

Phone: 775-337-8057 Fax: 775-322-6867

Emergency, Weekend, or Holiday Phone: _____

E-mail Address: RICKH@OAGNV.COM

Contact person to be notified for: permitting (☒ surety (☒ Notices (☒ (please check all that apply)

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JUL 13 2009

DIV. OF OIL, GAS & MINING

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1001

Name: RICK HAVENSTRITE Title: PRESIDENT
Address: 1290 HOLCOMB AVE
City, State, Zip: RENO NEV 89502
Phone: 775-337-8057 Fax: 775-322-4621
Emergency, Weekend, or Holiday Phone: 775-848-5193
E-mail Address: RICKH@OAC NV.COM

Contact person to be notified for: permitting ☒ surety ☒ Notices ☒ (please check all that apply)

Registered Utah Agent (as identified with the Utah Department of Commerce) (if individual leave blank):

Name: RONALD VANCE
Address: 1658 REMATION AVE STE 250
City, State, Zip: SOUTH JORDAN UTAH 84095
Phone: 801-446-8802 Fax: 801-446-8803
E-mail Address: RNVANCE@USLAW.COM

4. If Business is a Sole Proprietor:

Name of Owner: _____ Title: _____
Business Address: N/A
City, State, Zip: _____
Phone: _____ Fax: _____
E-mail Address: _____

If Business is a Corporation:

Name of Officers: BOB JORGENSEN Title: CFO AND CEO
RICK HAVENSTRITE Title: PRESIDENT

Headquarters Address: 8921 NORTH INDIAN TRAIL Rd - #288
City, State, Zip: SPOKANE WA 99208
Headquarters Phone: 509-467-8204 Fax: 509-468-1937
E-mail Address: bjorg953@yahoo.com

If Business is a Limited Liability Company: Member Managed ☐ Manager Managed ☐

Name of 1st Member/Manager: _____ Title: _____
Business Address: _____
City, State, Zip: _____
Phone: _____ Fax: N/A
E-mail Address: _____

Name of 2nd Member/Manager: _____
Business Address: _____
City, State, Zip: N/A
Phone: _____ Fax: _____
E-mail Address: _____

If Business is a Partnership:

Name of Partner: _____
Business Address: _____
City, State, Zip: N/A
Phone: _____ Fax: _____
E-mail Address: _____

5. **Ownership of Land Surface:**

☒ Private (Fee) ■ ☐ Public Domain (BLM) ■ ☐ National Forest (USFS) ■
☐ State Trust Land/School Sections ■ ☐ State Sovereign Lands ■
Other (please describe): _____

Name MOELLER FAMILY TRUST Address 80 WEST CANYON CREST Rd
Alpine UT 84004
Name _____ Address _____
Name _____ Address _____
Name _____ Address _____

6. **Ownership of Minerals:**

☒ Private (Fee) ■ ☐ Public Domain (BLM) ■ ☐ National Forest (USFS) ■
☐ State Trust Land/School Sections ■ ☐ State Sovereign Lands ■
Other (please describe): _____

Name MOELLER FAMILY TRUST Address 80 WEST CANYON CREST Rd
Alpine UT 84004
Name _____ Address _____
Name _____ Address _____
Name _____ Address _____

BLM Lease or Project File Number(s) and/or USFS assigned Project Number(s): _____

BLM Claim Numbers N/A

Utah State Lease Number(s): N/A

Name of Lessee(s) N/A

7. **Have the above surface and mineral owners been notified in writing?**

Yes ☒ No _____

If no, why not? _____

Please be advised that if State Trust Lands are involved, notification to the Division of Oil, Gas and Mining alone does not satisfy the notification requirements of Mineral Leases upon State Trust Lands. Exploration or mining activity on State Trust Lands requires a minimum of 60 days notice to the Trust Lands Administration prior to commencing any activities. Please contact the School Institutional Trust Lands Administration (SITLA) at (801) 538-5508 for notification requirements.

8. **Does the Entity have legal right to enter and conduct mining operations on the land covered by this notice?** Yes ☒ No _____

II. **PROJECT LOCATION & MAP** (Rule R647-3-105)

1. **Project Location** (legal description):

County(ies): TOOELE

SW 1/4, of SE 1/4, of NW 1/4: Section: 24 Township: 8S Range: 18W
NW 1/4, of SE 1/4, of NW 1/4: Section: 24 Township: 8S Range: 18W
SW 1/4, of NE 1/4, of NW 1/4: Section: 24 Township: 8S Range: 18W

UTM East _____ (if known) UTM North _____ (If known)

Name of Quad Map for Location: GOLD HILL UTM

2. **Location and Operations maps** must be plotted at a scale to accurately identify locational landmarks and operations details. All maps must include a north arrow, scale, appropriate labels, and title box including the mine name, township, range and section.

a. The **general location map** must be the scale of a USGS 7.5 minute series map or equivalent (1"=2000') and identify new or existing access roads.

b. The **operations map** (1"=200' or other scale as determined necessary by the Division) must be labeled and identify:

i. The area to be disturbed;

ii. The location of any existing or proposed operations including access roads, drill holes, trenches, pits, shafts, cuts, or other planned activities; and

iii. Any adjacent previous disturbance for which the operator is not responsible.

(Contact the Division for a list of consultants and land surveyors for mapping assistance.)

3. The proposed (5 acre or less) disturbed area (including access/haul roads) should be marked in the field ON THE GROUND with metal T-Posts (or with some other marker of equal effectiveness). Markers should be appropriately spaced so that the next marker in either direction is clearly visible with the naked eye.

III. **OPERATION PLAN** (Rule R647-3-106)

1. Type of mining: Surface ☒ Underground ☐

2. Mineral(s) to be mined: COPPER / GOLD

3. Amount of material to be extracted, moved, or proposed to be moved: _____

200,000 TONS

4. Will any water, liquid chemicals, reagents, or other solutions be used, produced or discharged as part of the mining or milling process?

Yes ☐ No ☒ If yes, please describe (add extra pages if needed) _____

5. Provide a brief description of the proposed mining operation and onsite processing facilities (add extra pages if necessary).

ORE WILL BE MINED
WITH TRACK HOE - DILLED AND BLASTED
BY CONTRACTOR - HAULED 5 MILES BY
CONTRACTOR TO CACTUS MILL - PENDING
PERMIT APPROVAL AT MILL

Form MR-SMO
03132007

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DIV. OIL GAS & MINING

6. ■ **New Road(s):** Length 0 (ft) Width 0 (ft)

7. ■ **Improved Road(s):** Provide a description of the improvements that need to be made to existing roads to access the site, including the Length 0 (ft) and Width 0 (ft) of improvements.

8. Total project surface acreage to be disturbed: 5 (acres) PLEASE SPECIFY EXACT ACREAGE - (this will be used to determine surety bond amount - see #VI). *EXISTING ROAD RUNS DOWN THE CENTER OF MINING AREA - WILL BE MIXED OUT*

9. Proposed startup date (month, year) AS SOON AS PERMIT APPROVED

10. Proposed completion date, if known (month, year) NO KNOWN DATE

IV. **OPERATION AND RECLAMATION PRACTICES** (Rule R647-3-107, 108 & 109)

The reclamation and operation obligation is to keep the area clean and safe, minimize hazards to public safety, return the land to a useful condition, and reestablish at least 70 percent of the premining vegetative ground cover. To accomplish this, the Permittee / Operator will need to perform reclamation concurrently, or at the completion (within one (1) year) of mining. Please refer to The Practical Guide to Reclamation in Utah, available at www.oqm.utah.gov.

1. Keep the mining operation in a safe, clean, and environmentally stable condition.
2. Permanently seal all shafts and tunnels to prevent unauthorized or accidental entry.
3. Plug drill holes with a five foot cement surface plug. Holes that encounter fluids are to be plugged in the subsurface to prevent aquifer contamination.
4. Construct berms, fences, or barriers, when needed, above highwalls and excavations.
5. Remove, isolate, or neutralize all toxic materials in a manner compatible with federal and state regulations.
6. Remove all waste or debris from stream channels.
7. Dispose of any trash, scrap metal, wood, machinery, and buildings.
8. Conduct mining activities so as to minimize erosion and control sediment.
9. Reclaim all roads that are not part of a permanent transportation system.
10. Stockpile topsoil and suitable overburden prior to mining.
11. Stabilize highwalls by backfilling or rounding to 45 degrees or less, where feasible; reshape the land to near its original contour, and redistribute the topsoil and suitable overburden.
12. Properly prepare seedbed to a depth of six inches by pocking, ripping, discing, or harrowing. Leave the surface rough.
13. Reseed disturbed areas with adaptable species. (The Division recommends a mixture of species of grass, forb, and browse seed, and will provide a specific species list if requested.)
14. Plant the seed with a rangeland or farm drill, or broadcast the seed. Fall is the preferred time to seed.

V. **VARIANCE REQUEST** (Rule R647-3-110)

Any variance request must be approved in writing by the Division

Any planned deviations from Rules R647-3-107, Operation Practices, R647-3-108, Hole Plugging Requirements, or R647-3-109, Reclamation Practices, as summarized above (see IV. Operation and Reclamation Practices Item # 1-14), should be identified below listing applicable rule number. Give justification for the variance(s) and alternate methods or measure to be utilized. Written approval from the Division will be given, if the proposed alternative methods to be used are consistent with the Act

Are variances being requested? Yes ☐ No ☒

1st Variance Requested

Item # _____ Applicable Rule # (i.e. R647-3-109.10 (if you did not want trenches & pits reclaimed)

Justification: _____

Alternate methods or measure to be utilized: _____

2nd Variance Requested

Item # _____ Applicable Rule # _____

Justification: _____

Alternate methods or measure to be utilized: _____

3rd Variance Requested

Item # _____ Applicable Rule # _____

Justification: _____

Alternate methods or measure to be utilized: _____

Attach additional page if more variances are requested.

VI. **SURETY** (Utah Code Ann. §40-8-7(1)[c])

A reclamation contract and surety must be provided to and approved by the Division prior to commencement of operations. All mining operations are required to furnish and maintain reclamation surety to guarantee that the land affected is reclaimed (Utah Code Ann. §40-8-7(1)[c]).

The reclamation surety amount is based on the nature, extent and duration of operations. The amounts are based on data from current large mine surety and are used as a general guide, along with actual site conditions. Reclamation surety for small mines is reviewed every three (3) or five (5) years and adjusted as necessary for inflation/deflation based upon acceptable Costs Index. **Contact the Division for the dollar amount required for a three (3) or five (5) year period for this project.**

I have provided or will provide surety in the form of:

☒ Certificate of Deposit ☐ Letter of Credit ☐ Surety Bond ☐ Cash (certified funds)
☐ Other _____ (please identify) _____ undecided

Form MR-SMO
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VII. **PERMIT FEE** (Utah Code Ann. §40-8-7(1)(i))

A permittee's authorization under a notice of intention to conduct small mining operations shall require the paying of permit fees as authorized by the Utah Legislature (R647-3-102.5). Permit fees are assessed to new and existing small mining operations, and annually thereafter, until the project disturbances are successfully reclaimed by the Permittee / Operator and released by the Division.

Small Mine Notices require a \$150.00 fee, which must accompany this application, or the Division cannot process it.

VIII. **SIGNATURE REQUIREMENT**

(Please check the box if applicable and place your initials on the line provided)

☒ RHA

I have enclosed the required permit fee.

☒ RHA

I have enclosed/requested a Reclamation Contract (Form MR-RC) and the appropriate reclamation surety amount or have made arrangements as to when the surety will be furnished.

☒ RHA

I understand that I am not authorized to create any surface disturbance until the surety amount is posted and approved in writing from the Division of Oil, Gas and Mining and any other authorized regulatory agency.

CERTIFICATION

I state under penalty of perjury under the laws of the state of Utah and the United States of America that:

- a. I have read this form and declare the information, statements and/or documentation are true, correct and complete to the best of my knowledge and belief; AND
- b. I commit to the reclamation of the aforementioned small mining project as required by the Utah Mined Land Reclamation Act (40-8) and the rules as specified by the Board of Oil, Gas and Mining.
- c. **This certification must be signed by:** (1.) an executive officer if the applicant is a corporation; (2.) a partner if applicant is a partnership (general or limited); (3.) the owner if applicant is a sole proprietorship; or (4.) the member or manager if applicant is a limited liability company.

Signature: Rick Havensrude

Date: 7/3/2009

Name (typed or printed): RICK HAVENSRUDE

Title/Position (if applicable): PRESIDENT

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DIV. OIL GAS & MINING

APPENDIX V
GEOTECHNICAL DATA

DESERET HAWK GOLD CORPORATION

Notice of Intention to Conduct Large
Mining Operations

KIEWIT PROJECT

Tooele County, Utah

January 2010



PROJECT: Miscellaneous Laboratory Testing
CLIENT: James Edward Engineering
MATERIAL: Sample No. 1325
SAMPLE SOURCE: Unknown

JOB NO: 9419000747
LAB NO: 1251
DATE SAMPLED: 5/8/2009
SAMPLED BY: Client

Measurement of Hydraulic Conductivity of Saturated Porous Materials
Using a Flexible Wall Permeameter (ASTM D 5084)

SAMPLE PREPARATION: Moisture conditioned to optimum moisture content.
METHOD OF COMPACTION: Moisture conditioned to optimum moisture content and compacted to 94-96 percent of maximum dry density.
TESTING METHOD: Method C: Falling Head Rising Tailwater

FIELD MOISTURE (%):	5.8	LAB MOISTURE (%):	7.0
INITIAL DIAMETER (cm):	10.160	FINAL DIAMETER (cm):	10.173
INITIAL LENGTH (cm):	11.684	FINAL LENGTH (cm):	11.722
INITIAL MOISTURE CONTENT (%):	6.9	FINAL MOISTURE CONTENT (%):	11.1

CONSOLIDATED? (Y/N):	Y	FINAL CONFINING PRESSURE (psi):	5
CELL PRESSURE (psi):	90		
BACKPRESSURE (psi):	85		

INITIAL DRY BULK DENSITY (lb/ft³): 128.1
% OF ASTM D 1557 COMPACTION: 94.0
FINAL DRY BULK DENSITY (lb/ft³): 127.3

FINAL B PARAMETER READING: 0.86
FINAL BACKPRESSURE (psi): 85

AVERAGE K_{sat} * (cm/s): 1.31E-04
AVERAGE K_{sat} * (ft/day): 3.70E-01

MAXIMUM GRADIENT USED: 1.92
MINIMUM GRADIENT USED: 0.64

*Corrected to 20°C

Note: All final sample dimensions are subject to sample deformation caused by exsolution of air in pore water.



**JAMES
EDWARD
ENGINEERING**

I N C O R P O R A T E D

9475 Double R Boulevard, Reno, NV 89521

Phone 775.828.1866 Fax 775.828.1871

1455 Deming Way, Suite 1C

Phone 775.331.1505 Fax 775.331.1258

**SOIL CLASSIFICATION
ASTM D 1140 & 4318**

PROJECT NAME:	Overhead Door
SOURCE:	
MATERIAL (USCS):	SC

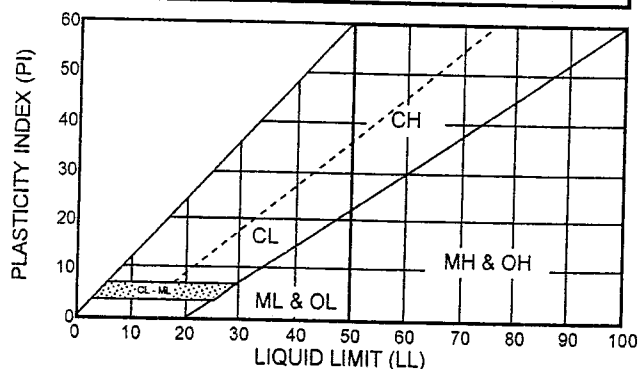
PROJECT NUMBER:	1180.01
LAB LOG NO:	1325
DATE SAMPLED:	04/22/2009

			Grams	Pounds		
WET WEIGHT:	826.5	WEIGHT COARSE	4863.3	10.7	WGT BEFORE WASH	752.2
DRY WEIGHT:	752.2	WEIGHT FINE	27478.8	60.6	WGT AFTER WASH	610.6
% MOISTURE	9.9	% FINE - 3/8	83.7	83.8	% #200	18.8

GRADATION									
SIEVE SIZE	CUMULATIVE WEIGHT RETAINED	PERCENT RETAINED	PERCENT PASSING	ADJUST FOR SPLIT	SIEVE SIZE	CUMULATIVE WEIGHT RETAINED	PERCENT RETAINED	PERCENT PASSING	ADJUST FOR SPLIT
3		0.0	100.0	100	# 4	75.9	10.1	90	75
2	1293.6	4.0	96.0	96	# 10	187.2	24.9	75	63
1 1/2	1852.5	6.0	94.0	94	# 16	283.4	37.7	62	52
1	2432.7	8.0	92.0	92	# 40	467.2	62.1	38	32
3/4	3054.9	10.0	90.0	90	# 100	570.5	75.8	24	20
1/2	4585.4	15.0	85.0	85	# 200	607.6	80.8	19.2	16.1
3/8	4863.3	16.0	84.0	84	PAN	610.6	81		

LIQUID LIMIT			
Can No.	G	X	B
Can + Wet Wt.	22.33	22.66	21.43
Can + Dry Wt.	19.81	20.01	18.95
Wt. Water	2.52	2.65	2.48
Wt. Tare	11.14	11.03	10.77
Dry Soil Wt.	8.67	8.98	8.18
% Moisture	29.1	29.5	30.3
No. Blows	29	24	21
LIQUID LIMIT	30	29	30

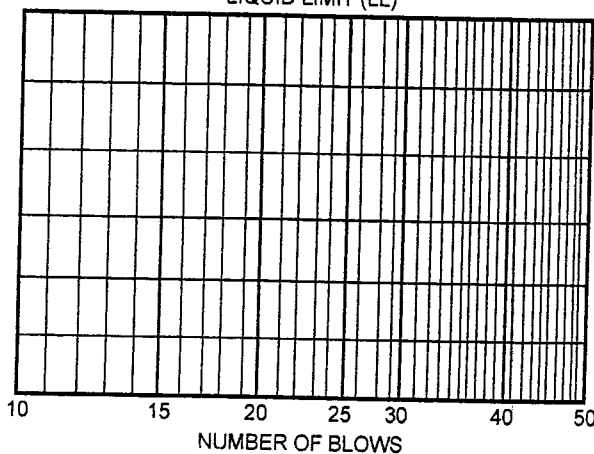
ATTERBERG LIMITS



PLASTIC LIMIT		
Can No.	H	Q
Can + Wet Wt.	22.21	21.03
Can + Dry Wt.	20.42	19.44
Wt. Water	1.79	1.59
Wt. Tare	11.09	11.12
Dry Soil Wt.	9.33	8.32
% Moisture	19.2	19.1

LL= 30 PL= 19.0 PI= 11

MOISTURE CONTENT (%)





**JAMES
EDWARD
ENGINEERING**

I N C O R P O R A T E D

9475 Double R Boulevard, Reno, NV 89521

Phone 775.828.1866 Fax 775.828.1871

1455 Deming Way, Suite 1C

Phone 775.331.1505 Fax 775.331.1258

**MAXIMUM DRY DENSITY
(ASTM D 698 & 1557)**

PROJECT NAME: Overhead Door
SOURCE:
MATERIAL (USCS): SC TECH: DK

PROJECT NUMBER: 1180.01
LAB LOG NO: 1325
DATE SAMPLED: 04/22/2009

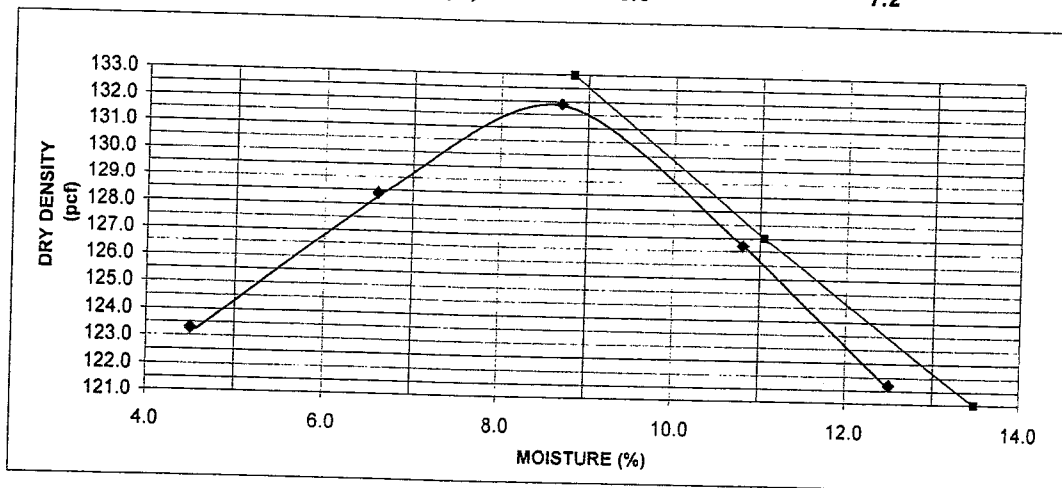
CURVE SIZE (IN):	4		METHOD:		B
MOISTURE CHANGE (+ %):	-6	-4	-2	0	2
MOLD + WET WEIGHT (GS):	3962.4	4083.6	4181.4	4136.9	4084.4
MOLD WEIGHT (GS):	2013.2	2013.2	2013.2	2013.2	2013.2
WET WEIGHT (GS):	1949.2	2070.4	2168.2	2123.7	2071.2
CONVERSION (GS):	0.06612	0.06612	0.06612	0.06612	0.06612
WET DENSITY (PCF):	128.9	136.9	143.4	140.4	136.9
WEIGHT WET SOIL (GS):	460.9	456.7	502	516.9	519.1
WEIGHT DRY SOIL (GS):	441	428.6	461.8	466.6	461.3
MOISTURE CONTENT (%):	4.5	6.6	8.7	10.8	12.5
DRY DENSITY (PCF):	123.3	128.4	131.9	126.7	121.7

SCREENED OVER 3/8		FINE	COARSE
WEIGHT RETAINED:	4863.3	WET WGT: 516.9	4863.8
WEIGHT PASSING:	27478.8	DRY WGT: 466.6	4863.8
TOTAL:	32342.1	% MOISTURE 10.8	0
		% RETAINED 83.6	16.4
3/8 WEIGHT DRY (GS)		3/8 BULK DRY SG	2.630
3/8 WEIGHT SSD (GS)		3/8 BULK SSD SG	#DIV/0!
3/8 WEIGHT IN WATER (GS)		3/8 APPARENT SG	#DIV/0!
3/8 ABSORPTION		#DIV/0!	

MAXIMUM DRY DENSITY (PCF)
OPTIMUM MOISTURE CONTENT (%)

131.9
8.6

W ROCK CORRECTION
136.2
7.2



APPENDIX VI

HEAP LEACH PAD LINER SPECIFICATIONS AND TESTING DATA

DESERET HAWK GOLD CORPORATION

Notice of Intention to Conduct Large
Mining Operations

KIEWIT PROJECT

Tooele County, Utah

January 2010

Lab codes: ASL = ActLabs Skyline; Act = ActLabs (ON); AAL = American Assay Labs; /Rp = Lab repeat analysis. Repeat of second pulp sub-sample; /R = Lab repeat analysis. Instrumentation only.

LOW SULFUR

Kiewit Historic Gold Zone Drill Sampling Analytical Summary KW_HISTORIC_DRILLSUM.xls Analyses Print		Element Det Level Method Units Lab	Hg 1 S 0.01* INA ppm Act	Ir 1 S 0.01* INA ppb Act	K 0.5 ICP4 INA ppm Act	La 0.5 ICP4 INA ppm Act	Lu 0.05 ICP4 INA ppm Act	Mass 0.01* ICP4 INA g Act	Mg 1 Mn 0.01* ICP4 % Act	Mo 1 Mo ppm Act	Na 1 Na ppm Act	Ni 1 Ni ppm Act	P 20 P ppm Act	Pb 3 Pb ppm Act	Rb 15 Rb ppm Act	S 0.01 ICP4 INA ppm Act	Sb 0.1 ICP4 INA ppm Act	Sc 0.1 ICP4 INA ppm Act	Se 0.1 ICP4 INA ppm Act	Sm 0.1 ICP4 INA ppm Act	Sn 0.01 ICP4 INA ppm Act	Sr 1 Sr ppm Act	Sr 0.05 ICP4 INA ppm Act	Ta 0.5 ICP4 INA ppm Act	Tb 0.5 ICP4 INA ppm Act	Th 0.2 ICP4 INA ppm Act					
Drill Hole	Sample No.	From(m)	To(m)	Act	Act	Act	Act	Act	Act	Act	Act	Act	Act	Act	Act	Act	Act	Act	Act	Act	Act	Act	Act	Act	Act	Act	Act	Act			
4KZ-01	4KZ0100000	0.00	1.52	-1	-5	4.55	77.2	0.27	17.20	0.67	516	9	9	0.18	56	12	-20	0.205	18	310	0.122	3.5	6.1	-3	8.9	-0.01	115	-0.05	3.8	-0.5	24.5
4KZ-01	4KZ0100152	1.52	3.05	-1	-5	4.39	43.9	0.16	19.69	0.49	154	5	4	0.12	37	10	-20	0.160	23	231	0.021	3.2	3.6	-3	4.9	-0.01	221	-0.05	1.6	-0.5	14.3
4KZ-01	4KZ0100305	3.05	4.88	-1	-5	7.19	69.7	0.20	18.53	1.04	267	6	6	0.19	57	12	-20	0.259	22	391	0.030	3.2	5.6	-3	7.9	-0.01	310	-0.05	1.7	-0.5	22.6
4KZ-01	4KZ0100480	4.88	5.37	-1	-5	4.05	51.4	0.23	18.25	0.59	334	14	11	0.14	35	13	-20	0.164	22	242	0.024	5.0	4.2	-3	5.8	-0.01	123	-0.05	1.8	-0.5	16.1
4KZ-01	4KZ0100537	5.37	6.75	-1	-5	6.43	67.6	0.26	18.76	0.84	469	7	6	0.20	55	10	-20	0.201	22	334	0.006	2.2	5.3	-3	7.2	-0.01	453	-0.05	-0.5	-0.5	22.4
4KZ-01	4KZ0100790	6.75	7.90	-1	-5	4.51	30.9	0.16	20.08	0.30	566	8	5	0.10	37	10	-20	0.121	17	262	0.006	3.0	3.2	-3	4.5	-0.01	498	-0.05	2.5	-0.5	11.8
4KZ-01	4KZ0100910	7.90	9.10	-1	-5	3.56	29.8	0.10	18.21	0.33	418	3	-1	0.06	22	7	-20	0.078	11	202	0.002	3.3	2.0	-3	2.9	-0.01	1127	-0.05	-0.5	-0.5	8.3
4KZ-01	4KZ0100945	9.10	9.45	-1	-5	6.46	68.2	0.25	20.07	1.02	413	6	5	0.11	52	13	-20	0.221	26	394	0.008	2.7	5.3	-3	7.5	-0.01	239	-0.05	1.9	-0.5	22.1
4KZ-01	4KZ0100990	9.45	9.90	-1	-5	4.80	55.0	0.15	20.02	0.50	315	14	13	0.10	41	9	-20	0.176	20	280	0.008	3.7	4.4	-3	5.9	-0.01	176	-0.05	2.8	-0.5	15.1
4KZ-01	4KZ0101128	11.28	11.48	-1	-5	6.84	83.7	0.30	18.60	1.06	286	5	4	0.16	64	12	-20	0.244	23	389	0.012	2.4	6.2	-3	8.7	-0.01	287	-0.05	2.6	-0.5	26.9
4KZ-01	4KZ0101148	11.48	12.81	-1	-5	6.08	77.7	0.22	21.66	1.57	344	8	4	0.14	58	11	-20	0.268	27	295	0.017	1.3	5.8	-3	8.2	-0.01	279	-0.05	3.8	-0.5	23.9
4KZ-01	4KZ0101281	12.81	13.58	-1	-5	5.76	70.4	0.16	19.43	0.74	311	6	2	0.11	42	11	-20	0.188	21	282	0.008	2.8	4.1	-3	6.5	-0.01	232	-0.05	1.5	-0.5	18.3
4KZ-01	4KZ0101281/R	12.81	13.58	-1	-5	3.77	48.7	0.13	20.53	0.39	257	8	7	0.07	31	7	-20	0.114	12	188	0.006	3.4	2.9	-3	4.2	-0.01	170	-0.05	1.1	-0.5	12.2
4KZ-01	4KZ0101358	13.58	14.43	-1	-5	6.37	77.9	0.22	21.02	0.80	264	8	4	0.13	44	10	-20	0.112	19	206	0.006	1.9	4.6	-3	6.8	-0.01	308	-0.05	1.3	-0.5	20.3
4KZ-01	4KZ0101443	14.43	15.53	-1	-5	7.03	87.0	0.21	19.80	1.06	401	2	3	0.14	55	9	-20	0.224	28	356	0.008	1.1	5.1	-3	7.7	-0.01	341	-0.05	3.4	-0.5	24.2
4KZ-01	4KZ0101553	15.53	17.60	-1	-5	5.06	76.8	0.23	18.82	0.78	400	8	5	0.11	43	10	-20	0.178	23	282	0.005	1.9	4.6	-3	6.8	-0.01	308	-0.05	1.3	-0.5	20.3
4KZ-01	4KZ0101760	17.60	18.40	-1	-5	6.41	90.2	0.24	20.80	1.06	352	4	-1	0.14	52	9	-20	0.212	24	335	0.003	1.3	5.5	-3	7.9	-0.01	311	-0.05	4.0	-0.5	26.1
4KZ-01	4KZ0101840	18.40	19.75	-1	-5	3.90	59.7	0.19	18.54	0.53	322	7	8	0.09	33	9	-20	0.142	18	230	0.005	3.0	3.8	-3	5.5	-0.01	119	-0.05	0.9	-0.5	16.3
4KZ-01	4KZ0101975	19.75	20.67	-1	-5	4.83	56.5	0.16	19.12	0.54	283	6	3	0.08	29	9	-20	0.132	18	227	0.002	2.7	3.4	-3	4.9	-0.01	296	-0.05	1.1	-0.5	15.6
4KZ-01	4KZ0102067	20.67	21.10	-1	-5	5.95	90.7	0.24	17.40	1.62	304	8	9	0.12	59	12	-20	0.273	25	320	0.017	2.3	5.9	-3	8.3	-0.01	232	-0.05	2.8	-0.5	23.8
4KZ-01	4KZ0102110	21.10	21.53	-1	-5	6.84	97.9	0.24	19.78	1.03	388	3	4	0.14	55	11	-20	0.233	27	334	0.006	1.4	6.0	-3	9.0	-0.01	398	-0.05	3.2	-0.5	28.3
4KZ-01	4KZ0102153	21.53	21.99	-1	-5	4.63	74.0	0.17	21.23	0.44	278	4	4	0.11	43	9	-20	0.160	19	267	0.007	1.9	4.3	-3	6.6	-0.01	204	-0.05	0.9	-0.5	20.3
4KZ-01	4KZ0102199	21.99	22.37	-1	-5	1.82	81.9	0.20	21.37	0.40	289	79	74	0.10	47	12	-20	0.175	22	226	0.005	3.2	4.6	-3	7.6	-0.01	158	-0.05	1.5	-0.5	19.3
4KZ-01	4KZ0102237	22.37	24.31	-1	-5	3.23	64.9	0.18	19.97	0.42	497	6	7	0.09	37	9	-20	0.122	19	183	0.009	2.9	3.4	-3	5.7	-0.01	198	-0.05	1.3	-0.5	18.3
4KZ-01	4KZ0102431	24.31	26.60	-1	-5	6.56	106.0	0.28	20.76	1.21	534	4	5	0.33	62	10	-20	0.235	31	329	0.005	1.2	5.7	-3	9.4	-0.01	480	-0.05	4.2	-0.5	28.0
4KZ-01	4KZ0100100			-1	-5	4.12	37.5	0.42	18.37	0.23	319	3	2	2.59	25	9	-20	0.050	8	111	-0.001	8.5	7.5	-3	9.3	-0.01	119	-0.05	0.5	-0.6	13.1
4KZ-01	4KZ0100200			-1	-5	0.49	5.3	0.09	25.75	0.50	80	3	2	0.06	-5	7	-20	0.026	3	-15	0.027	0.4	0.8	-3	0.7	0.01	42	-0.05	-0.5	-0.5	1.1
4KZ-01	4KZ0100200/R					0.50			0.51	79	2				7			0.025	4		0.027						40				
4KZ-01	4KZ0100300	45.04	46.80	-1	-5	3.74	58.7	0.14	17.43	0.55	414	-1	6	0.05	31	6	-20	0.106	15	253	0.004	2.7	3.1	-3	5.0	-0.01	608	0.05	1.6	-0.5	15.4
4KZ-01	4KZ0102660	26.60	27.63	-1	-5	0.18	1.9	-0.05	21.84	0.06	212	-1	-1	-0.01	-5	5	-20	0.002	-3	-15	-0.001	3.0	0.2	-3	0.2	-0.01	1055	0.07	-0.5	-0.5	0.5
4KZ-01	4KZ0102763/Rp	27.63	28.05	-1	-5	3.72	72.9	0.21	19.97	0.30	560	-1	-1	0.09	41	13	-20	0.132	23	189	0.019	1.7	3.7	-3	6.3	-0.01	648	-0.05	1.7	-0.5	19.7
4KZ-01	4KZ0102805	28.05	29.83	-1	-5	7.12	0.21	21.11				3	3	0.09	37		-20			198		2.1	4.0	-3	6.1	-0.01		-0.05	2.0	-0.5	19.0
4KZ-01	4KZ0102983	29.83	30.15	-1	-5	4.77	77.1	0.22	21.68	0.09	399	4	8	0.08	42	11	-20	0.158	34	298	0.013	4.7	3.4	-3	6.6	-0.01	252	-0.05	2.5	-0.5	22.1
4KZ-01	4KZ0103015	30.15	30.93	-1	-5	1.49	163.0	0.07	20.21	0.10	271	-1	1	0.03	12	5	-20	0.031	6	86	0.002	3.3	0.9	-3	1.5	-0.01	1207	0.10	0.7	-0.5	4.7
4KZ-01	4KZ0103093	30.93	31.88	-1	-5	6.29	160.0	0.29	19.07	1.24	493	3	5	0.14	60	11	-20	0.243	30	387	0.005	1.3	5.8	-3	9.4	-0.01	689	-0.05	3.2	-0.7	22.3
4KZ-01	4KZ0103188	31.88	33.54	-1	-5	3.12	41.7	0.13	19.54	0.49	280	1	3	0.07	28	6	-20	0.074	14	188	-0.001	2.0	2.0	-3	3.4	-0.01	1171	0.12	1.4	-0.5	11.4
4KZ-01	4KZ0103354	33.54	34.70	-1	-5	0.72	11.8	-0.05	23.31	0.15	262	-1	2	0.02	6	5	-20	0.016	-3	41	0.002	1.9	0.4	-3	0.8	-0.01	1045	0.08	-0.5	-0.5	2.4
4KZ-01	4KZ0103470	34.70	36.40	-1	-5	5.58	59.4	0.17	21.60	0.59	356	2	2	0.08	35	9	-20	0.117	21	291	-0.001	1.5	2.8	-3	4.8	-0.01	727	0.06	1.2	-0.5	17.8
4KZ-01	4KZ0103640	36.40	38.05	-1	-5	6.31	83.3	0.23	20.39	0.74	398	2	4	0.09	43	9	-20	0.167	18	364	0.001	1.8	3.6	-3	6.4	-0.01	465	0.07	2.6	-0.5	20.9
4KZ-01	4KZ0103850	38.05	38.50	-1	-5	5.76	61.7	0.21	20.10	0.40	596	2	5	0.08	32	11	-20	0.143	16	335	0.003	2.1	3.5	-3	5.4	-0.01	869	0.06	1.0	-0.5	15.5
4KZ-01	4KZ0103915	39.15	40.30	-1	-5	5.99	58.3	0.18	18.94	0.49	554	-1	4	0.09	34	10	-20	0.007	-3	21	-0.001	1.8	0.2	-3	0.3	-0.01	1755	0.16	0.5	-0.5	0.6
4KZ-01	4KZ0104030	40.30	41.30	-1	-5	4.75	60.6	0.15	20.23	0.73	493	3	5	0.06	35	9	-20	0.135	18	337	-0.001	1.6	2.9	-3	5.2	-0.01	574	-0.05	1.5	-0.5	19.2
4KZ-01	4KZ0104130	41.30	42.37	-1	-5	3.16	35.9	0.11	21.56	0.27	255	1	3	0.05	19	5	-20	0.071	13	179	0.002	1.8	1.6	-3	2.8	-0.01					

Lab codes: ASL = ActLabs Skyline; Act = ActLabs (ON); AAL = American Assay Labs; /Rp = Lab repeat analysis. Repeat of second pulp sub-sample; /R = Lab repeat analysis. Instrumentation only.

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FA = F ay, 1AT, AA or INA finish; ICP4 = ICP after four acid digestion; INA = INAA, apprx 30g sample

o = Check assay of pulp sub-sample; FA-r = Check assay of coarse reject sub-sample.

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(8)

APPENDIX VII

HEAP LEACH PAD NETTING AND SPECIFICATIONS

DESERET HAWK GOLD CORPORATION

Notice of Intention to Conduct Large
Mining Operations

KIEWIT PROJECT

Tooele County, Utah

January 2010

INDUSTRIAL NETTING



Netting, Mesh, and Screens for Industry

Custom Convert & Ship within 24 hrs

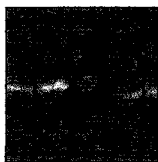
Home | Products | News & Events | About Us

Need Help Finding the Right Product?

Mon-Fri 7:30 am to 5:00 pm CST

Applications:

PEST CONTROL



Products List



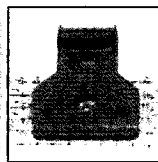
Deer Fencing



Bat House Netting



Disease Control
Netting



Installation
Accessories

Environmentally friendly Bird Net, Bat Net, and Deer Net keeps unwanted animals away from buildings, warehouses, crops and other areas where you don't want them.

Birdnet from Industrial Netting has been the humane bird control netting for nuisance birds for over three decades. It's the "environmentally friendly" method of bird exclusion - keeping pesky birds out of areas where you don't want them, and away from valuable fruit and vegetable crops you want to protect. No wonder it's often referred to as pest netting, pigeon mesh or pigeon screen.

Birdnet by Industrial Netting won't rust or rot. And it's . . .

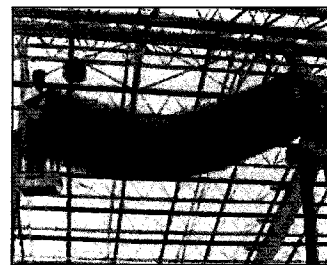
- Non-toxic
- Non-corrosive
- Non-conductive
- Chemical resistant
- Economical
- Light-weight
- UV Stabilized for long life
- Easily cleaned
- Easily fabricated
- Environmentally friendly
- Nearly invisible when installed
- Suitable for a wide temperature range

Buildings

Block access to roosting sites for structures of all shapes and sizes. When it comes to keeping pest birds - from pigeons to sparrows (and bats too!) - out of buildings, Birdnet from Industrial Netting is the smart choice for bird control. Its UV stabilized for long life. It's black, and nearly invisible once installed. It's non-toxic, non-corrosive and non-conductive. It's also clean and easy to fabricate.

Whatever the building or structure, Birdnet netting, mesh and screen products can help guard against the safety and health hazards, and general nuisance that roosting and nesting birds can create. Birdnet is an environmentally friendly, humane solution to exclude unwanted birds and bats without inflicting trauma:

- Barns
- Silos
- Garages
- Churches
- Canopies
- Industrial and commercial buildings
- Warehouses
- Parking ramps
- Poultry houses
- Airplane hangars
- Open air markets



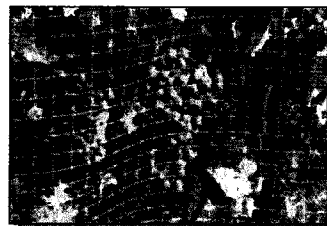
Heavy duty poultry netting can also be used as a plastic "chicken wire" to help contain chickens and turkeys within poultry barns and poultry houses while helping keep other pests out.

Crops

Birdnet is the ideal canopy or cover, draped or suspended over valuable crops to prevent birds from "stealing" or causing damage (it's been successfully used in vineyards for years). From starlings, blue jays and grackles, to sparrows and every bird in between, Birdnet from Industrial Netting can help you make them look for another source of food other than your crops!

Birdnet is widely used to protect crops like these:

- Wine grapes
- Table grapes
- Blueberries
- Strawberries
- Raspberries
- Blackberries
- Pears
- Apples
- Cherries



Use Birdnet over ponds and other open water areas as a pond netting to discourage and keep away birds that feed on fish. Industrial Netting also offers a complete line of predator nets for Aquaculture (create link to Aquaculture page).

Deer Fencing

Plastic netting is a durable, environmentally friendly alternative to keep unwanted critters out of your arborvitae, garden or shrubbery - and it won't rust like wire.



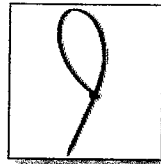
Black UV stabilized Deer Net is easily to install and virtually invisible from a distance. For economical protection of your trees, shrubs and seedlings choose from our selection of versatile, durable **Plastic Fence** as a perimeter garden fence for deer, rabbits, cats, geese, and other "critters."

Installation Accessories

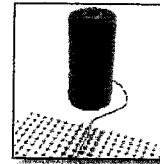
Installation accessories from Industrial Netting help simplify any netting installation project. They're each designed to work with our netting to provide comparable tensile strengths and maximum service life. Purchase on-line at:



Polyclips
Form and instant grommet



Cable Ties
UV stabilized for long life

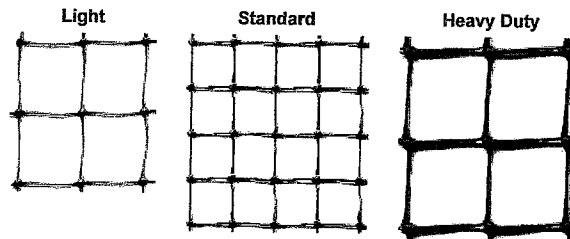


Splice Kits
Sew pieces together for wider coverage

Birdnet Plastic Pest Netting

Birdnet plastic pest netting from Industrial Netting is available in bulk roll form or cut-to-size pieces to meet your specific requirements for application. Or choose from a multitude of easy-to-handle consumer sized **Garden Netting** products for immediate shipment.

No order is too small!



Product Specifications

Bird and Pest Control Product List (Light Duty)						
Product (Not Actual Size)	Product Number	Mesh Size (inches)	Product Color	Roll Width (feet)	Roll Length (feet)	Roll Weight (lbs)
	OV 6200	1/8	Black	14	5000	450
	OB 5340	1/4	Black	14	5000	300 & 360
	OV 1670	5/8 X 3/4	Black	14	5000	230
	OV 1678	5/8 X 3/4	Black	17	5000	320
Bird and Pest Control Product List (Standard Duty)						
Product (Not Actual Size)	Product Number	Mesh Size (inches)	Product Color	Roll Width (feet)	Roll Length (feet)	Roll Weight (lbs)

APPENDIX VIII

SOIL RESOURCE REPORT FOR KIEWIT PROJECT AREA, UTAH

DESERET HAWK GOLD CORPORATION

Notice of Intention to Conduct Large
Mining Operations

KIEWIT PROJECT

Tooele County, Utah

January 2010



United States
Department of
Agriculture

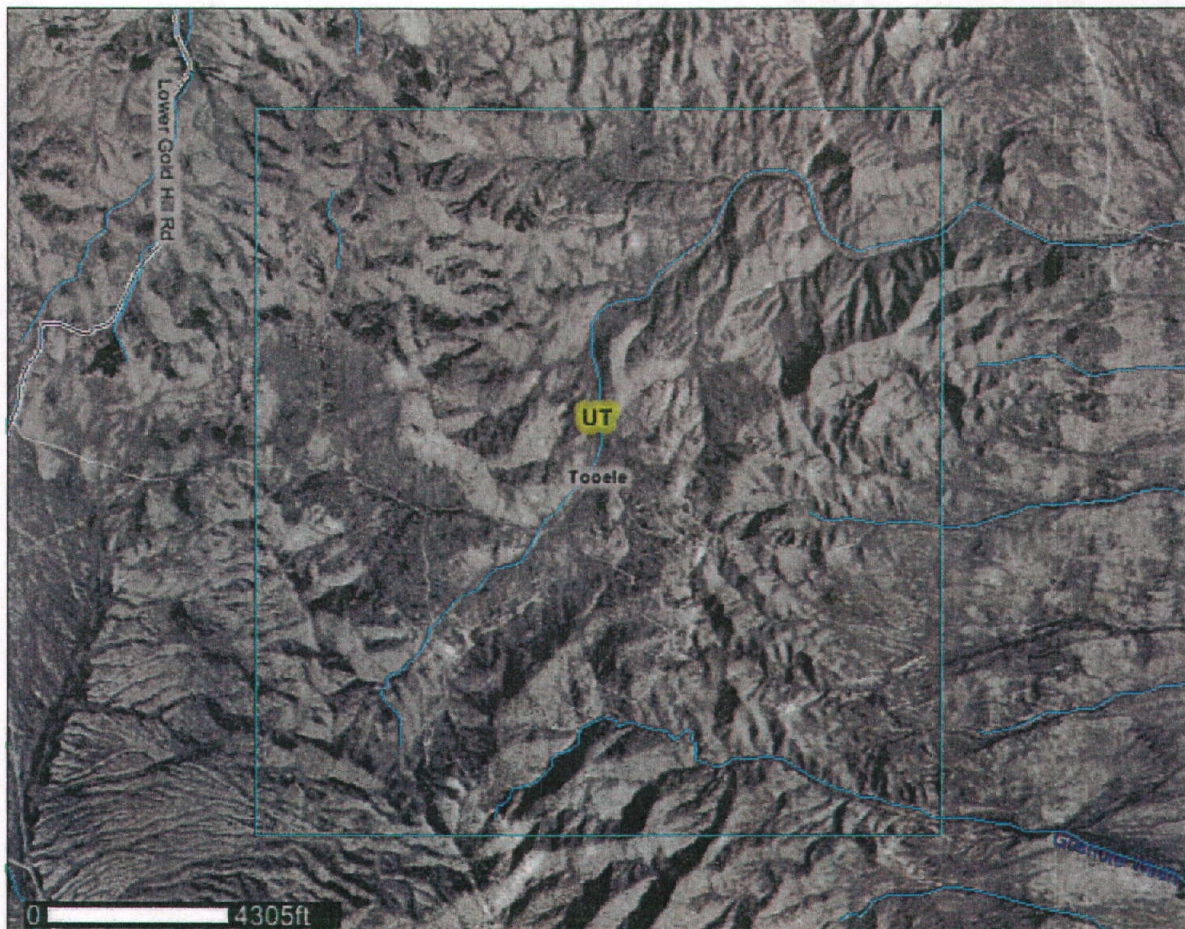


NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Tooele Area, Utah - Tooele County and Parts of Box Elder, Davis and Juab Counties



November 11, 2009

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://soils.usda.gov/sqi/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<http://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://soils.usda.gov/contact/state_offices/).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Soil Data Mart Web site or the NRCS Web Soil Survey. The Soil Data Mart is the data storage site for the official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

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individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

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Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.













































Custom Soil Resource Report
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MAP LEGEND

	Area of Interest (AOI)		Very Stony Spot
	Soils		Wet Spot
	Soil Map Units		Other
	Special Point Features		Special Line Features
	Blowout		Gully
	Borrow Pit		Short Steep Slope
	Clay Spot		Other
	Closed Depression		Political Features
	Gravel Pit		Cities
	Gravelly Spot		PLSS Township and Range
	Landfill		PLSS Section
	Lava Flow		Water Features
	Marsh or swamp		Oceans
	Mine or Quarry		Streams and Canals
	Miscellaneous Water		Transportation
	Perennial Water		Rails
	Rock Outcrop		Interstate Highways
	Saline Spot		US Routes
	Sandy Spot		Major Roads
	Severely Eroded Spot		
	Sinkhole		
	Slide or Slip		
	Sodic Spot		
	Spoil Area		
	Stony Spot		

MAP INFORMATION

Map Scale: 1:39,600 if printed on A size (8.5" x 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 12N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Tooele Area, Utah - Tooele County and Parts of Box Elder, Davis and Juab Counties
Survey Area Data: Version 5, Sep 3, 2009

Date(s) aerial images were photographed: 7/20/1997; 6/20/1993; 6/19/1993

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Tooele Area, Utah - Tooele County and Parts of Box Elder, Davis and Juab Counties (UT611)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
4	Amtoft-Rock outcrop complex, 30 to 70 percent slopes	1,775.6	29.4%
11	Checkett-Rock outcrop complex, 10 to 40 percent slopes	2,611.6	43.3%
21	Hiko Peak gravelly loam, 2 to 15 percent slopes	96.4	1.6%
27	Izamatch-Cliffdown, alkali complex, 2 to 8 percent slopes	32.9	0.5%
48	Reywat-Broad-Rock outcrop association, 30 to 60 percent slopes	1,521.7	25.2%
Totals for Area of Interest		6,038.1	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

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Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

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The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Tooele Area, Utah - Tooele County and Parts of Box Elder, Davis and Juab Counties

4—Amtoft-Rock outcrop complex, 30 to 70 percent slopes

Map Unit Setting

Elevation: 5,500 to 7,000 feet

Mean annual precipitation: 10 to 12 inches

Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 100 to 140 days

Map Unit Composition

Amtoft and similar soils: 65 percent

Rock outcrop: 15 percent

Minor components: 20 percent

Description of Amtoft

Setting

Landform: Mountainsides, hillsides

Landform position (three-dimensional): Mountainflank, side slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Colluvium derived from limestone and/or residuum weathered from limestone

Properties and qualities

Slope: 30 to 70 percent

Surface area covered with cobbles, stones or boulders: 2.0 percent

Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 80 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 4.0 mmhos/cm)

Available water capacity: Very low (about 1.3 inches)

Interpretive groups

Land capability (nonirrigated): 7e

Typical profile

0 to 9 inches: Very cobbly loam

9 to 16 inches: Extremely cobbly loam

16 to 26 inches: Bedrock

Description of Rock Outcrop

Setting

Landform: Hillsides, mountainsides

Landform position (three-dimensional): Mountainflank, side slope

Down-slope shape: Convex

Across-slope shape: Convex

Tooele Area, Utah - Tooele County and Parts of Box Elder, Davis and Juab Counties

4—Amtoft-Rock outcrop complex, 30 to 70 percent slopes

Map Unit Setting

Elevation: 5,500 to 7,000 feet

Mean annual precipitation: 10 to 12 inches

Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 100 to 140 days

Map Unit Composition

Amtoft and similar soils: 65 percent

Rock outcrop: 15 percent

Minor components: 20 percent

Description of Amtoft

Setting

Landform: Mountainsides, hillsides

Landform position (three-dimensional): Mountainflank, side slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Colluvium derived from limestone and/or residuum weathered from limestone

Properties and qualities

Slope: 30 to 70 percent

Surface area covered with cobbles, stones or boulders: 2.0 percent

Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 80 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 4.0 mmhos/cm)

Available water capacity: Very low (about 1.3 inches)

Interpretive groups

Land capability (nonirrigated): 7e

Typical profile

0 to 9 inches: Very cobbly loam

9 to 16 inches: Extremely cobbly loam

16 to 26 inches: Bedrock

Description of Rock Outcrop

Setting

Landform: Hillsides, mountainsides

Landform position (three-dimensional): Mountainflank, side slope

Down-slope shape: Convex

Across-slope shape: Convex

Custom Soil Resource Report

Interpretive groups

Land capability (nonirrigated): 8s

Minor Components

Lundy

Percent of map unit: 4 percent

Lodar

Percent of map unit: 4 percent

Cliffdown

Percent of map unit: 3 percent

Spager

Percent of map unit: 3 percent

Hiko peak

Percent of map unit: 3 percent

Checkett

Percent of map unit: 3 percent

11—Checkett-Rock outcrop complex, 10 to 40 percent slopes

Map Unit Setting

Elevation: 4,400 to 6,700 feet

Mean annual precipitation: 8 to 12 inches

Mean annual air temperature: 45 to 49 degrees F

Frost-free period: 100 to 140 days

Map Unit Composition

Checkett and similar soils: 75 percent

Rock outcrop: 10 percent

Minor components: 15 percent

Description of Checkett

Setting

Landform: Mountainsides, hillsides

Landform position (three-dimensional): Mountainflank, side slope

Down-slope shape: Convex

Across-slope shape: Convex

*Parent material: Colluvium derived from igneous and metamorphic rock and/or
residuum weathered from igneous and metamorphic rock*

Properties and qualities

Slope: 10 to 40 percent

Surface area covered with cobbles, stones or boulders: 3.0 percent

Depth to restrictive feature: 14 to 20 inches to lithic bedrock

Drainage class: Well drained

Custom Soil Resource Report

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high
(0.06 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 4.0 mmhos/cm)

Available water capacity: Very low (about 1.4 inches)

Interpretive groups

Land capability (nonirrigated): 7s

Ecological site: Semidesert Shallow Loam (Black Sagebrush) (R028AY236UT)

Typical profile

0 to 3 inches: Very cobbly loam

3 to 14 inches: Very cobbly loam

14 to 24 inches: Unweathered bedrock

Description of Rock Outcrop

Setting

Landform: Hillsides, mountainsides

Landform position (three-dimensional): Mountainflank, side slope

Down-slope shape: Convex

Across-slope shape: Convex

Interpretive groups

Land capability (nonirrigated): 8s

Minor Components

Hiko peak

Percent of map unit: 8 percent

Reyat

Percent of map unit: 7 percent

21—Hiko Peak gravelly loam, 2 to 15 percent slopes

Map Unit Setting

Elevation: 4,400 to 6,000 feet

Mean annual precipitation: 10 to 12 inches

Mean annual air temperature: 45 to 50 degrees F

Frost-free period: 100 to 140 days

Map Unit Composition

Hiko peak and similar soils: 90 percent

Minor components: 10 percent

Custom Soil Resource Report

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high
(0.06 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 4.0 mmhos/cm)

Available water capacity: Very low (about 1.4 inches)

Interpretive groups

Land capability (nonirrigated): 7s

Ecological site: Semidesert Shallow Loam (Black Sagebrush) (R028AY236UT)

Typical profile

0 to 3 inches: Very cobbly loam

3 to 14 inches: Very cobbly loam

14 to 24 inches: Unweathered bedrock

Description of Rock Outcrop

Setting

Landform: Hillsides, mountainsides

Landform position (three-dimensional): Mountainflank, side slope

Down-slope shape: Convex

Across-slope shape: Convex

Interpretive groups

Land capability (nonirrigated): 8s

Minor Components

Hiko peak

Percent of map unit: 8 percent

Reyat

Percent of map unit: 7 percent

21—Hiko Peak gravelly loam, 2 to 15 percent slopes

Map Unit Setting

Elevation: 4,400 to 6,000 feet

Mean annual precipitation: 10 to 12 inches

Mean annual air temperature: 45 to 50 degrees F

Frost-free period: 100 to 140 days

Map Unit Composition

Hiko peak and similar soils: 90 percent

Minor components: 10 percent

Description of Hiko Peak

Setting

Landform: Fan remnants
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Mixed alluvium

Properties and qualities

Slope: 2 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 30.0
Available water capacity: Moderate (about 6.1 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability (nonirrigated): 6s
Ecological site: Semidesert Gravelly Loam (Wyoming Big Sagebrush) North
(R028AY215UT)

Typical profile

0 to 4 inches: Gravelly loam
4 to 12 inches: Very gravelly loam
12 to 60 inches: Very gravelly loam

Minor Components

Medburn

Percent of map unit: 4 percent

Spager

Percent of map unit: 3 percent

Berent

Percent of map unit: 3 percent

27—Izamatch-Cliffdown, alkali complex, 2 to 8 percent slopes

Map Unit Setting

Elevation: 4,200 to 5,300 feet
Mean annual precipitation: 6 to 8 inches
Mean annual air temperature: 50 to 52 degrees F
Frost-free period: 130 to 150 days

Custom Soil Resource Report

Map Unit Composition

Izamatch and similar soils: 45 percent
Cliffdown and similar soils: 40 percent
Minor components: 15 percent

Description of Izamatch

Setting

Landform: Lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed alluvium and/or mixed lacustrine deposits

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 30.0
Available water capacity: Very low (about 2.7 inches)

Interpretive groups

Land capability (nonirrigated): 7s
Ecological site: Desert Gravelly Sandy Loam (Indian Ricegrass) (R028AY122UT)

Typical profile

0 to 3 inches: Gravelly sandy loam
3 to 10 inches: Gravelly sandy loam
10 to 30 inches: Very gravelly loamy sand
30 to 60 inches: Very gravelly sand

Description of Cliffdown

Setting

Landform: Fan remnants
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Alluvium derived from sedimentary rock

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Slightly saline to moderately saline (8.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum: 12.0

Custom Soil Resource Report

Map Unit Composition

Izamatch and similar soils: 45 percent
Cliffdown and similar soils: 40 percent
Minor components: 15 percent

Description of Izamatch

Setting

Landform: Lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed alluvium and/or mixed lacustrine deposits

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 30.0
Available water capacity: Very low (about 2.7 inches)

Interpretive groups

Land capability (nonirrigated): 7s
Ecological site: Desert Gravelly Sandy Loam (Indian Ricegrass) (R028AY122UT)

Typical profile

0 to 3 inches: Gravelly sandy loam
3 to 10 inches: Gravelly sandy loam
10 to 30 inches: Very gravelly loamy sand
30 to 60 inches: Very gravelly sand

Description of Cliffdown

Setting

Landform: Fan remnants
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Alluvium derived from sedimentary rock

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Slightly saline to moderately saline (8.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum: 12.0

Custom Soil Resource Report

Available water capacity: Low (about 3.1 inches)

Interpretive groups

Land capability (nonirrigated): 7s

Ecological site: Desert Alkali Bench (Bud Sagebrush) (R028AY104UT)

Typical profile

0 to 3 inches: Very gravelly sandy loam

3 to 60 inches: Very gravelly sandy loam

Minor Components

Yenrab

Percent of map unit: 4 percent

Tooele

Percent of map unit: 4 percent

Hiko peak

Percent of map unit: 3 percent

Rock outcrop

Percent of map unit: 2 percent

Badlands

Percent of map unit: 2 percent

48—Reywat-Broad-Rock outcrop association, 30 to 60 percent slopes

Map Unit Setting

Elevation: 5,200 to 7,200 feet

Mean annual precipitation: 12 to 17 inches

Mean annual air temperature: 42 to 52 degrees F

Frost-free period: 80 to 120 days

Map Unit Composition

Reywat and similar soils: 45 percent

Broad and similar soils: 30 percent

Rock outcrop: 10 percent

Minor components: 15 percent

Description of Reywat

Setting

Landform: Mountainsides, hillsides

Landform position (three-dimensional): Mountainflank, side slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Residuum and colluvium derived from quartzite and igneous rocks

Properties and qualities

Slope: 30 to 60 percent

Custom Soil Resource Report

Surface area covered with cobbles, stones or boulders: 2.0 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water capacity: Very low (about 1.2 inches)

Interpretive groups

Land capability (nonirrigated): 7e

Typical profile

0 to 2 inches: Very cobbly loam
2 to 11 inches: Very cobbly clay loam
11 to 21 inches: Unweathered bedrock

Description of Broad

Setting

Landform: Hillsides, mountainsides
Landform position (three-dimensional): Mountainflank, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum and colluvium derived from quartzite and igneous rocks

Properties and qualities

Slope: 30 to 60 percent
Surface area covered with cobbles, stones or boulders: 2.0 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 13.0
Available water capacity: Low (about 4.1 inches)

Interpretive groups

Land capability (nonirrigated): 7e
Ecological site: Mountain Stony Loam (Antelope Bitterbrush) (R028AY456UT)

Typical profile

0 to 4 inches: Cobbly loam
4 to 14 inches: Cobbly loam
14 to 23 inches: Very gravelly clay loam
23 to 36 inches: Very cobbly loam
36 to 46 inches: Unweathered bedrock

Description of Rock Outcrop

Setting

Landform: Hillsides, mountainsides

Custom Soil Resource Report

Surface area covered with cobbles, stones or boulders: 2.0 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water capacity: Very low (about 1.2 inches)

Interpretive groups

Land capability (nonirrigated): 7e

Typical profile

0 to 2 inches: Very cobbly loam
2 to 11 inches: Very cobbly clay loam
11 to 21 inches: Unweathered bedrock

Description of Broad

Setting

Landform: Hillsides, mountainsides
Landform position (three-dimensional): Mountainflank, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum and colluvium derived from quartzite and igneous rocks

Properties and qualities

Slope: 30 to 60 percent
Surface area covered with cobbles, stones or boulders: 2.0 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 13.0
Available water capacity: Low (about 4.1 inches)

Interpretive groups

Land capability (nonirrigated): 7e
Ecological site: Mountain Stony Loam (Antelope Bitterbrush) (R028AY456UT)

Typical profile

0 to 4 inches: Cobbly loam
4 to 14 inches: Cobbly loam
14 to 23 inches: Very gravelly clay loam
23 to 36 inches: Very cobbly loam
36 to 46 inches: Unweathered bedrock

Description of Rock Outcrop

Setting

Landform: Hillsides, mountainsides

Custom Soil Resource Report

Landform position (three-dimensional): Mountainflank, side slope
Down-slope shape: Convex
Across-slope shape: Convex

Interpretive groups

Land capability (nonirrigated): 8s

Minor Components

Reywat

Percent of map unit: 5 percent

Lodar

Percent of map unit: 5 percent

Abela

Percent of map unit: 5 percent

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Custom Soil Resource Report

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APPENDIX IX

SOIL SAMPLE RESULTS

DESERET HAWK GOLD CORPORATION

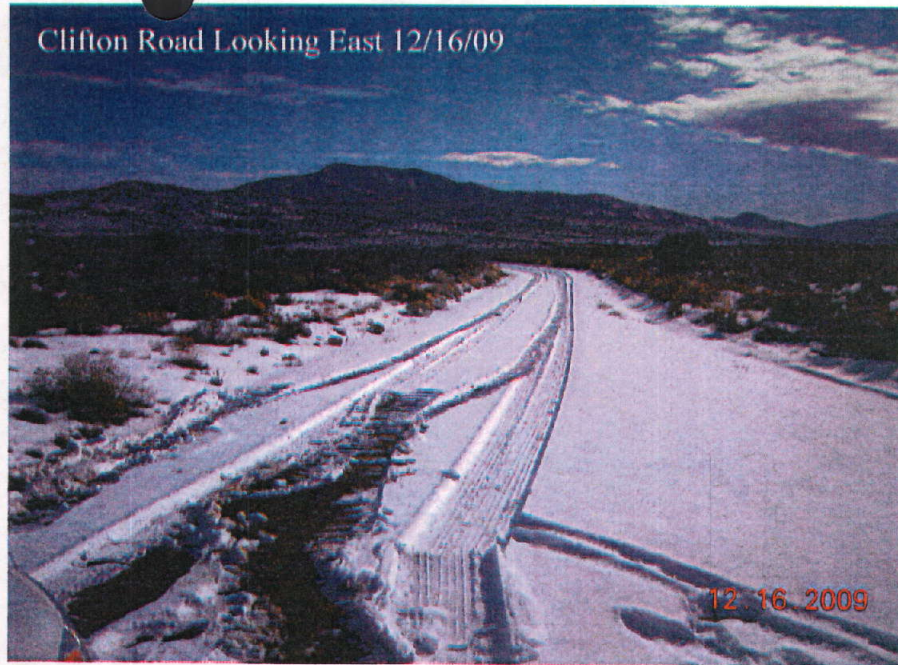
Notice of Intention to Conduct Large
Mining Operations

KIEWIT PROJECT

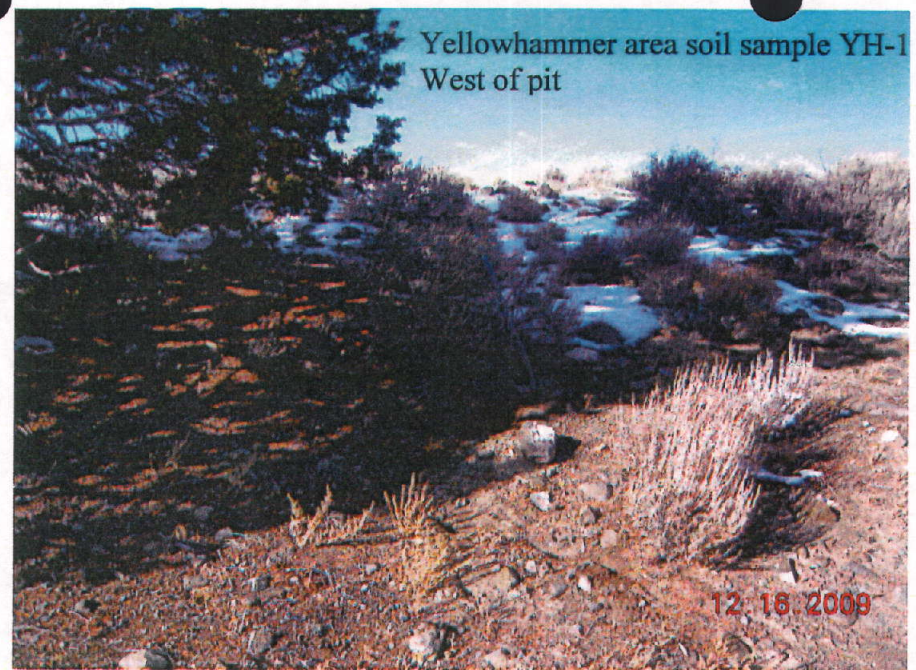
Tooele County, Utah

January 2010

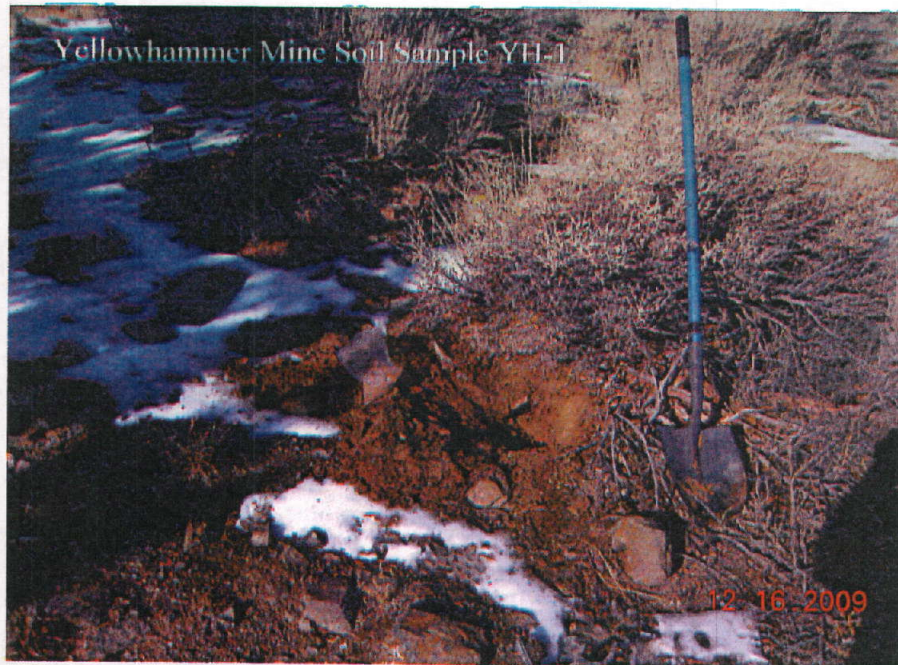
Clifton Road Looking East 12/16/09



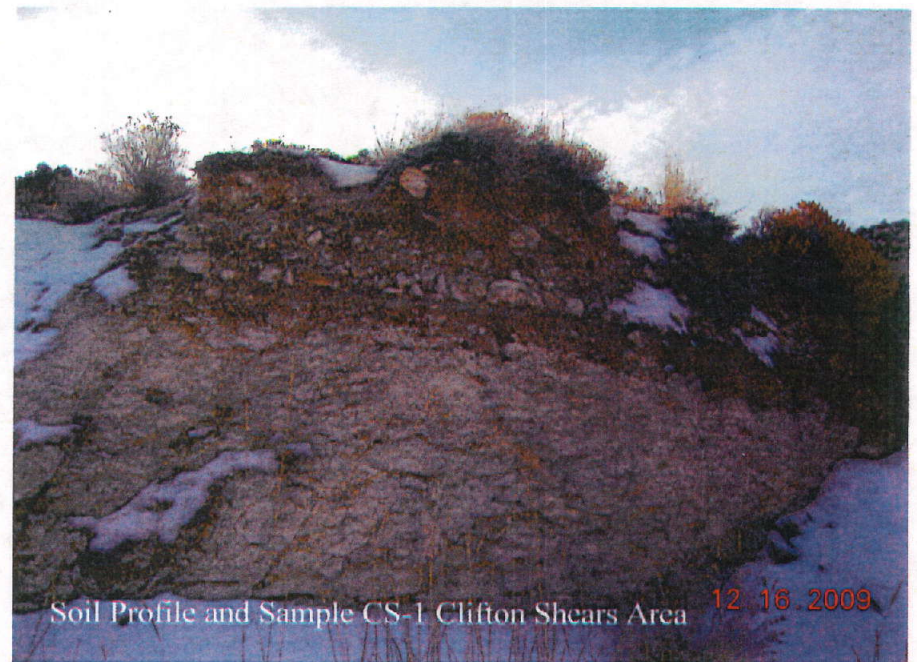
Yellowhammer area soil sample YH-1
West of pit



Yellowhammer Mine Soil Sample YH-1



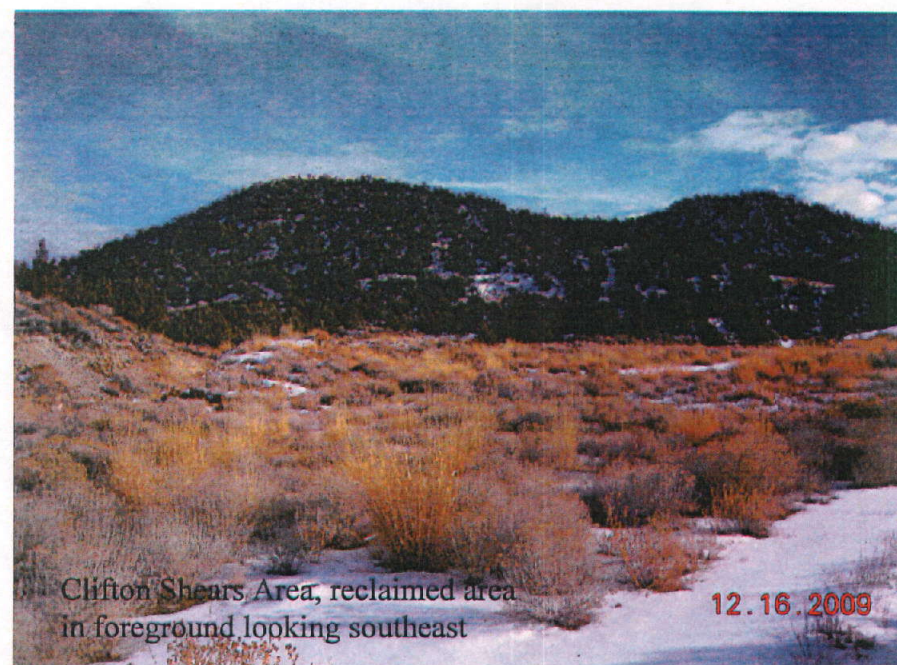
Soil Profile and Sample CS-1 Clifton Shears Area 12.16.2009





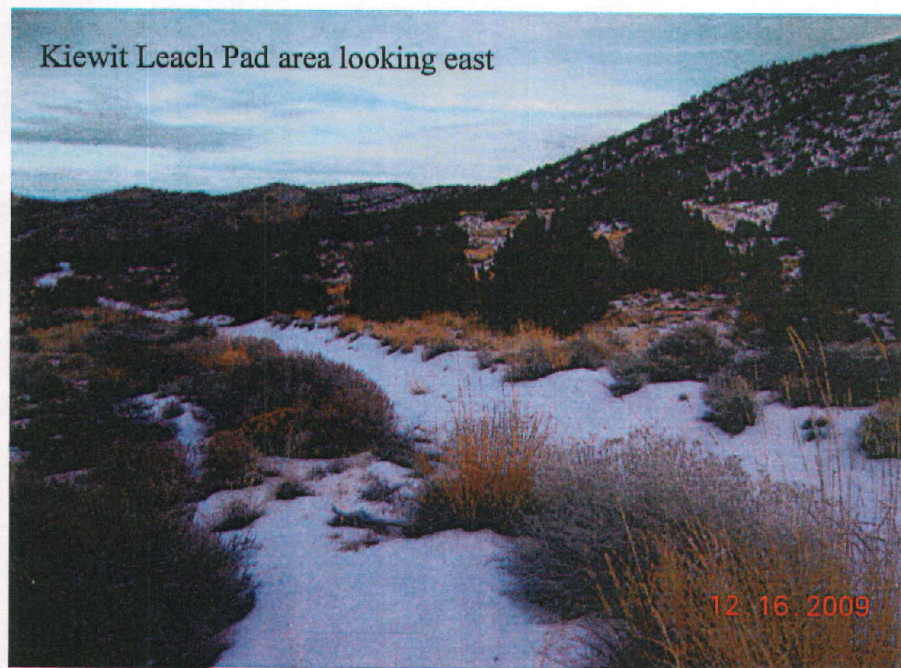
Kiewit Pad Area Soil Sample KP-1

12.16.2009



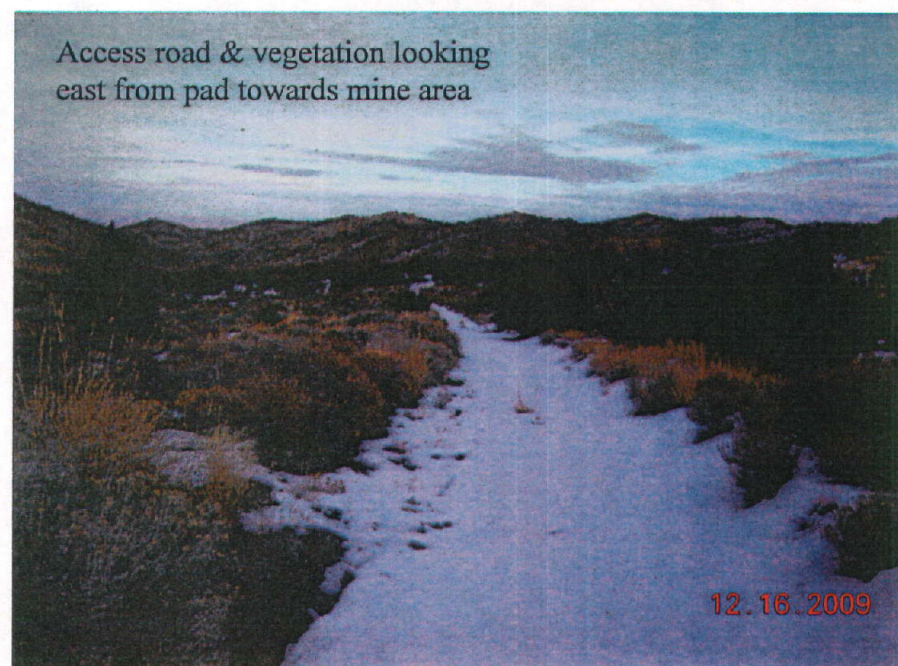
Clifton Shears Area, reclaimed area
in foreground looking southeast

12.16.2009



Kiewit Leach Pad area looking east

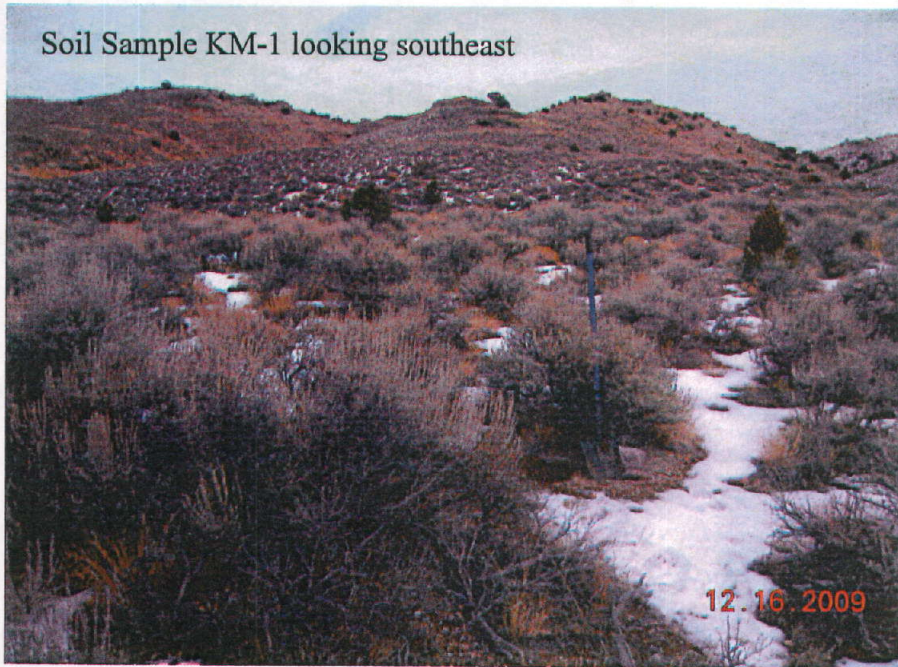
12.16.2009



Access road & vegetation looking
east from pad towards mine area

12.16.2009

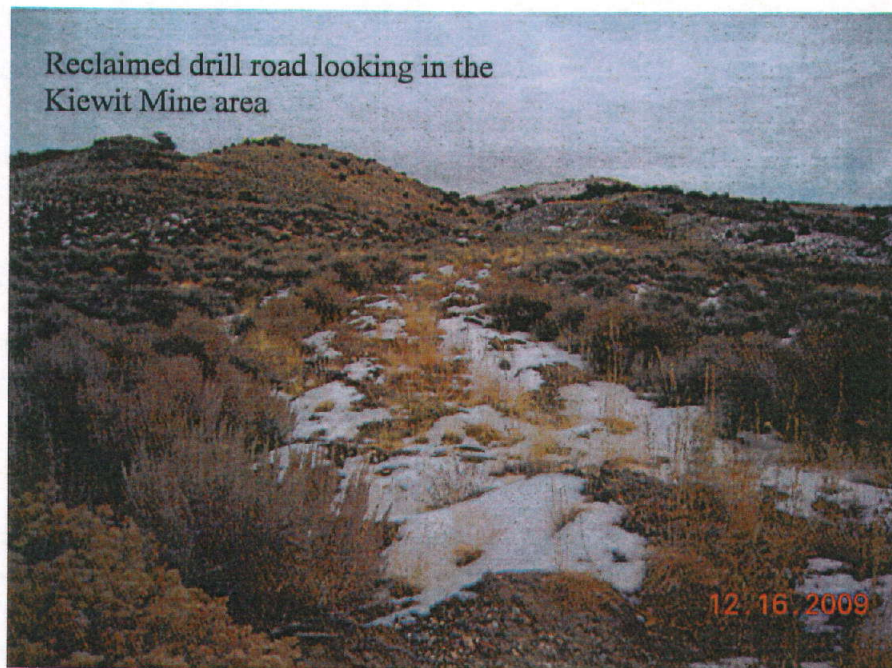
Soil Sample KM-1 looking southeast



Kiewit Mine area (west of site) soil sample KM-1



Reclaimed drill road looking in the Kiewit Mine area



USU ANALYTICAL

LABORATORIES

Soil Test Report and Fertilizer Recommendations

USU Analytical Labs

Utah State University
Logan, Utah 84322-4830
(435) 797-2217
(435) 797-2117 (FAX)
www.usual.usu.edu

Date Received: 1/7/2010
Date Completed: 1/14/2010

Name: Jay Gatten
Address: 447 NORTH 300 WEST STE #3
KAYSVILLE UT 84037

Phone: 801 544 3421
County: DAVIS

Lab Number: 1001-0005

Grower's Comments:

Acres in Field:

Identification: YH-1

Crop to be Grown:

Soil Test Results			Interpretations	Recommendations
Texture		Sandy Clay Loam		
pH		7.69	Normal	
Salinity - ECe	dS/m	0.68		
Phosphorus - P	mg/kg	11.1		
Potassium - K	mg/kg	319		
Nitrate-Nitrogen - N	mg/kg			
Zinc - Zn	mg/kg			
Iron - Fe	mg/kg			
Copper - Cu	mg/kg			
Manganese - Mn	mg/kg			
Sulfate-Sulfur - S	mg/kg			
Organic Matter	%			
SAR		1.86	Normal	

Notes

FOR INTERPRETATIONS / RECOMMENDATIONS, PLEASE CONTACT THE LAB WITH INFORMATION ON WHAT YOU WILL BE GROWING (NOT INDICATED ON INFORMATION SHEET RECEIVED).

For further assistance, please see your County Agent -- Shawn Olsen - 451-3402

For further information and publications of interest, see the

USU Analytical Lab webpage or Utah State University Extension

Methods Used by USUAL: pH + EC (salinity) + SAR by saturated paste; P + K by Olsen sodium bicarbonate extract - K by AA, P by ascorbic acid/molybdate blue colorimetric; NO₃-N by CaO extract + cadmium reduction; Zn, Fe, Cu, Mn by DTPA + ICP; SO₄-S by CaHPO₄ + ICP; OM by Walkley-Black

Results only reflect the sample received and may not be indicative of actual field conditions.

USU ANALYTICAL

LABORATORIES

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(435) 797-2217
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Date Received: 1/7/2010
Date Completed: 1/14/2010

Name: Jay Gatten
Address: 447 NORTH 300 WEST STE #3
KAYSVILLE UT 84037

Phone: 801 544 3421
County: DAVIS

Lab Number: 1001-0006

Grower's Comments:

Acres in Field:

Identification: CS-1

Crop to be Grown:

Soil Test Results
Interpretations
Recommendations

Texture		Sandy Loam		
pH		7.77	Normal	
Salinity - ECe	dS/m	3.50		
Phosphorus - P	mg/kg	17.8		
Potassium - K	mg/kg	222		
Nitrate-Nitrogen - N	mg/kg			
Zinc - Zn	mg/kg			
Iron - Fe	mg/kg			
Copper - Cu	mg/kg			
Manganese - Mn	mg/kg			
Sulfate-Sulfur - S	mg/kg			
Organic Matter	%			
SAR		6.71	Normal	

Notes

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Date Received: 1/7/2010

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Name: Jay Gatten

Address: 447 NORTH 300 WEST STE #3

KAYSVILLE UT 84037

Phone: 801 544 3421

County: DAVIS

Lab Number: 1001-0007

Grower's Comments:

Acres in Field:

Identification: KM-1

Crop to be Grown:

Soil Test Results
Interpretations
Recommendations

Texture		Sandy Clay Loam		
pH		7.79	Normal	
Salinity - ECe	dS/m	0.42		
Phosphorus - P	mg/kg	6.7		
Potassium - K	mg/kg	190		
Nitrate-Nitrogen - N	mg/kg			
Zinc - Zn	mg/kg			
Iron - Fe	mg/kg			
Copper - Cu	mg/kg			
Manganese - Mn	mg/kg			
Sulfate-Sulfur - S	mg/kg			
Organic Matter	%			
SAR		0.71	Normal	

Notes

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For further information and publications of interest, see the

USU Analytical Lab webpage or Utah State University Extension

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Results only reflect the sample received and may not be indicative of actual field conditions.

USU ANALYTICAL

Soil Test Report and Fertilizer Recommendations

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Logan, Utah 84322-4830
(435) 797-2217
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www.usual.usu.edu

Date Received: 1/7/2010

Date Completed: 1/14/2010

Name: Jay Gatten

Address: 447 NORTH 300 WEST STE #3

KAYSVILLE UT 84037

Phone: 801 544 3421

County: DAVIS

Lab Number: 1001-0008

Grower's Comments:

Acres in Field:

Identification: KP-1

Crop to be Grown:

Soil Test Results**Interpretations****Recommendations**

Texture		Sandy Loam		
pH		7.75	Normal	
Salinity - E _{Ce}	dS/m	0.51		
Phosphorus - P	mg/kg	3.4		
Potassium - K	mg/kg	165		
Nitrate-Nitrogen - N	mg/kg			
Zinc - Zn	mg/kg			
Iron - Fe	mg/kg			
Copper - Cu	mg/kg			
Manganese - Mn	mg/kg			
Sulfate-Sulfur - S	mg/kg			
Organic Matter	%			
SAR		1.74	Normal	

Notes

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For further information and publications of interest, see the

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Methods Used by USUAL: pH + EC (salinity) + SAR by saturated paste; P + K by Olsen sodium bicarbonate extract - K by AA, P by ascorbic acid/molybdate blue colorimetric; NO₃-N by CaO extract + cadmium reduction; Zn, Fe, Cu, Mn by DTPA + ICP; SO₄-S by CaHPO₄ + ICP; OM by Walkley-Black

Results only reflect the sample received and may not be indicative of actual field conditions.

APPENDIX X
VEGETATION SURVEY

DESERET HAWK GOLD CORPORATION

Notice of Intention to Conduct Large
Mining Operations

KIEWIT PROJECT

Tooele County, Utah

January 2010

KIEWIT PROJECT VEGETATION SURVEY

A survey of the vegetation present in the Kiewit Project area was conducted by Desert Hawk Gold consultants, Jay Gatten and David Morris (of North American Exploration). This survey was conducted on December 16, 2009, and the visual results are as follows:

Pad, Haul Road, Process Area – There are approximately 100 scattered pinion pine and juniper trees in the heap leach area. Vegetation within the 50% - 60% plant cover, excluding the trees, is estimated at 55% sage brush, 20% rabbit brush (most in prior disturbance areas), 15% sage and 10% native grasses and other plants. The extremely sandy soils will be beneficial to re-vegetative success.

Kiewit Mine Area – The rocky hills have less than 25% plant cover or no brush and very few trees. The successfully reclaimed haul roads support slightly better amounts of grass. Vegetation within the plant cover is estimated at 65% sage brush, 15% rabbit brush, 10% sage and 10% native grasses and other plants.

Clifton Mine Area – There is currently 50% - 60% plant cover of grass and sage brush and about 100 scattered pinion pine and juniper trees. The plant cover is estimated to be 65% sage brush, 10% rabbit brush, 10% sage, 15% native grass and other plants. The extremely sandy soil will be beneficial to re-vegetative success.

Yellow Hammer Mine Area – Much of this area has been disturbed by prior mining and prospecting activities. It is estimated that there is about 30% plant cover outside the active and un-reclaimed mine. The plant cover is estimated to be 50% rabbit brush, 10% sage brush, 30% weeds (mostly tumble weeds) and 10% grass and other plants. The sandy soils appear to support re-vegetation.

General photographs of the vegetation are included in Appendix I and Appendix IX (Soil Sample Results).

APPENDIX XI

STORM WATER MANAGEMENT PLAN

DESERET HAWK GOLD CORPORATION

Notice of Intention to Conduct Large
Mining Operations

KIEWIT PROJECT

Tooele County, Utah

January 2010

Desert Hawk Gold Corporation
Kiewit Project
Tooele County, Utah

STORM WATER MANAGEMENT PLAN

JANUARY 2010

Submitted by:
North American Exploration, Inc.
447 North 300 West, Suite #3
Kaysville, UT 84037
(801) 544-3421

oigatten@nae-xploration.com

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 - 2.2. Facility Maps**
 - 2.3. Facility Cross Sections**
 - 2.4. Storm Water Collection Zones**
- 3. Pollutant Sources**
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 - 3.1.2. Nonstructural controls that reduce pollutants in storm water runoff**
 - 3.1.3. Structural controls that reduce pollutants and storm water runoff**
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 - D. Completed Inspection Report Forms**
 - E. Employee Training Records**

1. UPDES Permit

In 1972, Congress passed the Federal Water Pollution Control Act (FWPCA), also known as the Clean Water Act (CWA), to restore and maintain the quality of the nation's waterways. The ultimate goal was to make sure that rivers and streams were fishable, swimmable, and drinkable. In 1997, the Water Quality Act (WQA) added provisions to the CWA that allowed the EPA to govern storm water discharges from industrial activities. EPA published the final notice for Phase 1 of the Multi-Sector General Storm Water Permit program (Federal Register Volume 60 No. 189, September 20, 1995, page 50804) in 1995 which included provisions for the development of a Storm Water Pollution Prevention Plan (SWPPP) by each industrial facility discharging storm water.

The Utah Division of Water Quality developed the state-wide Utah Pollutant Discharge Elimination System (UPDES) program based on the federal standards. Utah is now in charge of its own state program- that is, it has "primacy" over the federal program.

The UPDES Permit is the mechanism Utah uses to regulate "point-source" discharges, including storm water discharges, to surface waters of the State. The SWP3 provides a site-specific, operator-driven set of pollution control standards for any discharges that occur at a particular industrial facility. A state-side "General Industrial Storm Water Permit" provides a blanket UPDES permit to those operators who certify that their SWP3 meets the standards set out in the UPDES program. The program has different standards depending on the industrial sector involved.

1.1 Waiver

The Utah Division of Water Quality does not require a UPDES Permit for Metal Mining (Ore Mining and Dressing), Standard Industry Classification (SIC) code 10, when runoff does not contact overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations. This facility does not discharge storm water and is not required to obtain a UPDES permit. The facility shall be inspected and evaluated for the necessity of a permit whenever:

1. There is a significant change in the acreage disturbed; or a significant change to the design, construction, operation, or maintenance of on-site facilities that could have a significant effect on the quantity of runoff;
2. The inspection reveals a new discharge of water or one that has not previously been recognized by facility personnel.

If the evaluation reveals that the facility is no longer capable of containing runoff, and a significant discharge is found, then a UPDES permit shall be acquired and a SWP3 shall be implemented. The SWP3 shall be specific to the site and follow the guidelines as outlined for the sector under which the facility operates.

2. Storm Water Management Plan (SWMP)

Desert Hawk Gold has prepared a SWMP that would be implemented at the Kiewit Project operations. Development, implementation, and maintenance of this SWMP will provide Desert

Hawk Gold with the tools to reduce pollutants contained in storm water at the Kiewit Project mine and heap leach facilities.

The primary goals of the SWMP are:

- Identify potential sources of pollutants that affect storm water at the site;
- Describe the practices that will be implemented to prevent or control the release of pollutants in storm water;
- Evaluate the plan's effectiveness in reducing the pollutant levels in storm water;
- Train employees on effective storm water management

2.1 Facility Contacts

A list of facility contacts along with emergency reporting procedures can be found in Appendix A of this document.

2.2 Facility Maps

Appendix B contains maps specific to this facility which show: location, size, operations, and runoff environment. Along with the maps are brief descriptions of the storm water run-off Zone's in the area. The maps are:

- SWP – 1 Project Area
- SWP – 2 Pre Mine Topography
- SWP – 3 Storm Water Management Plan

2.3 Facility Cross Sections

A cross section specific to this facility showing the general layout of the berms, haul road, and diversions that will direct storm water around the processing facility is shown in Appendix B, SWP – 3.

2.4 Storm Water Run-Off Zones

Zone A includes all of the storm water collection area which flows into Rodenhouse Wash above the proposed Kiewit Mine Heap Leach Pad, Crusher Area and Process Facilities. The total area of Zone A is 1,080 acres. The pits at the Yellow Hammer Mine and the Clifton Shears Mine are located within Zone A, but will not discharge any storm water into the collection area of Rodenhouse Wash.

Zone B includes the entire water collection area above the Kiewit Mine, Crusher Area, Heap Leach Pad and Process Facilities - 210 acres. All drainage in this area will flow into the diversion ditch. The diversion ditch will prevent storm water from flowing onto the Crusher Area, Heap Leach Pad and Process Facilities and carry water to the Containment Pond. In

the event of a 24 hour, 10 year precipitation event, it is estimated that 1.3 inches of water will accumulate. If the soil in Zone B is saturated prior to such an event, about 280 acre/inches (7.4 million gallons) of storm water would be diverted into the Containment Pond. The Containment Pond is 4.5 acres in size, averages about eight (8) feet deep and would have a capacity of about 11.7 million gallons.

Zone C includes the Kiewit Mine and Haul Road - 30 acres. Run-off from Zone C will be collected in the diversion ditch. Development of the pit will form a bowl shaped depression and contain all storm water within the pit. During the initial development of Zone C, storm water from a 24 hour, 10 year event could reach about 40 acre/inches (1.1 million gallons). This water will flow into the Containment Pond.

Zone D includes the crusher and equipment maintenance areas – 5 acres. Berms will contain storm water. Any water running off of the berms or sides of the pad will be collected by the diversion ditch and flow into the Containment Pond.

Zone E includes the Heap Leach Pad, Leach Pond and Process Area – 19.5 acres. All of Zone E is underlain with an 80 mil HDPE liner. All storm water that falls onto Zone E will be self contained and stored in the Process Pond.

The capacity of the Process Pond is as follows:

	Gallons
1)Working Volume	100,000
2)24 Hour- 100 Year Event: Zone E (825,000 Square feet x 1.3 inches of water	660,000
3)48 Hour Shut Down (1500gpm x 48 Hours)	4,320,000
Total Required Volume	5,080,000
Pond Design Capacity	6,240,000
Excess Capacity of Process Pond	1,160,000

3. Pollutant Sources

3.1 Inventory of Materials

Materials used by this facility that have the potential to be present in storm water runoff are listed in the following table. This table includes information regarding material type, chemical and physical description, and the specific regulated storm water pollutants associated with each material.

Trade Name Material	Chemical/Physical Description	Storm Water Pollutants
Granodiorite (Waste Rock)	Dark Appearance 63-69% Silica	Turbidity
Granodiorite (Ore)	Dark Appearance 63-69% Silica	Turbidity
Lime	White/Gray Solid	Calcium Oxide
Sodium Cyanide	Inorganic Compound (Salt)	None
Waste fuel (motor oil, spent solvents, cleaning fluids, etc)	Various colored liquids, pastes, and solids, petroleum hydrocarbons	Mineral oil, petroleum distillates
Gasoline	Colorless, pale brown or pink	Benzene, ethyl benzene, toluene
Diesel Fuel		Nonane, ethyltoluenes, Naphthalene

3.1.1 Practices used to minimize contact of materials with rainfall and runoff

- Material piles are kept in a compact shape to minimize surface area.
- Ore materials and overburden are stored on flat areas do not pond, and on areas that drain into the storm water management diversion system whenever possible. No materials are stored within an unprotected drainage area.

3.1.2 Nonstructural controls that reduce pollutants in storm water runoff

- Regular maintenance of machinery and equipment minimizes spills and leaks.
- Quarterly inspections of fluid containers to check for leaks and deteriorations. Any leaks identified during the inspection will be immediately cleaned using a dry absorbent.
- An emergency spill kit with the supplies necessary to clean a fuel spill (a broom, a shovel, sand, saw dust, a 55-gallon drum) would be stored in a convenient location near the fueling station area and in the shop so they will be immediately available in the event of a spill.
- A spill prevention, containment and counter measures (SPCC) plan will be implemented as a resource to prevent spills, or in the event of a spill, to aid in the clean-up process. The plan addresses proper procedures and maintenance of the fuel and oil products and equipment, and identifies supplies and equipment for quick spill response.

3.1.3 Structural controls that reduce pollutants and storm water runoff

Structural controls that reduce contaminants in storm water runoff include: collection ponds, berms/swales, drainage diversions and secondary containment for fuel/oil. The entire leach pad and process area are underlain by 80 mil HDPE plastic liner which prevents the release of any process fluids.

3.2 Risk Identification and Summary of Potential Pollutant Sources

3.2.1 Loading and unloading operations

- Sediment can fall from loaders while dump trucks are being loaded with mining materials. Minor leaks can drain from equipment used at the loading site.

3.2.2 Outdoor manufacturing/process activities

- Parking areas: Employees park their vehicles in a designated parking area. Storm water from this area can be potentially contaminated by leaking fluids from the parked vehicles. These contaminants may contain mineral oil, petroleum, distillates, benzene, ethyl benzenes, toluene, xylene, and MTBE (Methyl Tertiary Butyl Ether).
- Fueling areas: Fueling activities are performed at the fuel storage areas. Storm water from these areas can be potentially contaminated by fluids leaking from the trucks during refueling activities and spills and leaks at the fueling station. These contaminants may contain mineral oil, petroleum distillates, benzenes, ethyl benzene, toluene, xylene, and MTBE.
- Mineral Truck loading/unloading areas: Trucks unload ore in stockpile areas or at the heap leach pad. Storm water from this area can be potentially contaminated by fluids leaking on to the gravel surface from the trucks and by other spills. These contaminants may contain mineral oil, benzene, toluene, xylene, MTBE, silicon, dissolved, solids, suspended solids, calcium sulfate, tricalcium aluminate, and tetracalcium aluminoferrite.

3.2.3 Dust/particle generating activities

Dust is generated as ore, waste rock and overburden materials are loaded/unloaded or moved from one stockpile to another. Dusty roads and materials may be sprayed to control fugitive dust and all activities occur within the perimeter of the facility, so the sediments that may contaminate storm water runoff will remain onsite.

3.2.4 On-site waste disposal practices

Sources of waste include office waste, employees lunch waste, small lubricant cans and buckets. Any of these waste sources could become scattered across the site due to wind, inadequate disposal containers or sloppy employee housekeeping. Trash cans are provided and emptied on a regular basis to ensure no storm water is adversely affected. Portable toilets will be provided for on-site personnel and will be serviced on a regular basis by a contractor.

4. Measures and Controls

This section discusses the storm water management controls implemented at the facility and describes the management practices selected to address the areas of concern identified in Section 3 of this SWMP.

4.1 Good Housekeeping

Good housekeeping Best Management Practices (BMP's) refers to ongoing or regular practices that ensure that areas of the facility with a potential to contribute pollutants to storm water are kept clean and orderly. The following comprise some of the good housekeeping practices that will be routinely followed:

- Litter is controlled through employee awareness, trash receptacle placement, and frequent cleanup, among other controls. New employees are instructed in litter control as part of their initial training. Wind blown litter and other debris is periodically cleaned up from the entire site.
- Fueling and servicing takes place in designated areas away from surface water collection areas.
- To reduce the chance of spills during fueling, the equipment operator remains at the fueling point while the tank is being filled. All valves are opened immediately prior to, and closed immediately after fueling.
- Tanks and drums are refilled and/or re-supplied between on a periodic basis, these tanks and drums are secondarily contained.
- A spill kit is maintained on site to absorb any spilled fuel.
- A detailed description of preventative and clean-up measures for fuel and oil spills will be found in the SPCC and kept on site at all times.

4.2 Preventive Maintenance

- Vehicles, equipment, and machinery will be kept in good working order so that their likelihood of discharging fluids that could contact storm water is minimized
- Water systems used in dust control will be regularly maintained to avoid small, chronic leaks or larger volume releases.
- Earthen slopes, diversions ditches and retention berms will be maintained in order to reduce erosion and storm water transport of their materials.
- The inspection procedures discussed in Section 4.4 will ensure that items requiring maintenance are identified. If maintenance is needed, items are repaired as soon as practicable. During the next inspection, special attention is paid to those items in order to verify that maintenance activities were adequately completed.

4.3 Other Controls

All waste created during operations will be removed from the area and disposed of appropriately. No trash or other pollutants will be buried on site. All applicable Federal, State and or local waste disposal regulations will be complied with. Any gasoline, diesel fuels, lubricants, and other potential pollutants stored on the property are stored in double-walled tanks. Grease, oil, and lubricants will be stored within an enclosed area and inventoried on a regular basis.

4.4 Inspections

Once a quarter, material handling and storage areas, drum storage areas, conveyors, hoppers, and stockpile areas will be inspected to assure that there are no leaks, fuel or oil disposition areas, or other signs that hydrocarbons are uncontrolled. Storm water control structures and equipment such as berms, sediment control and collection systems, and containment structures are also inspected to ensure continued proper operation.

As stipulated in the SPCC plan, fuel and oil products, and their containment systems will be inspected in accordance with the SPCC plan inspection schedule.

4.5 Employee Training

An employee training program will be developed and implemented to educate employees about the requirements contained in these plans and other plans relating to storm water management and spill prevention. This education program will include the following:

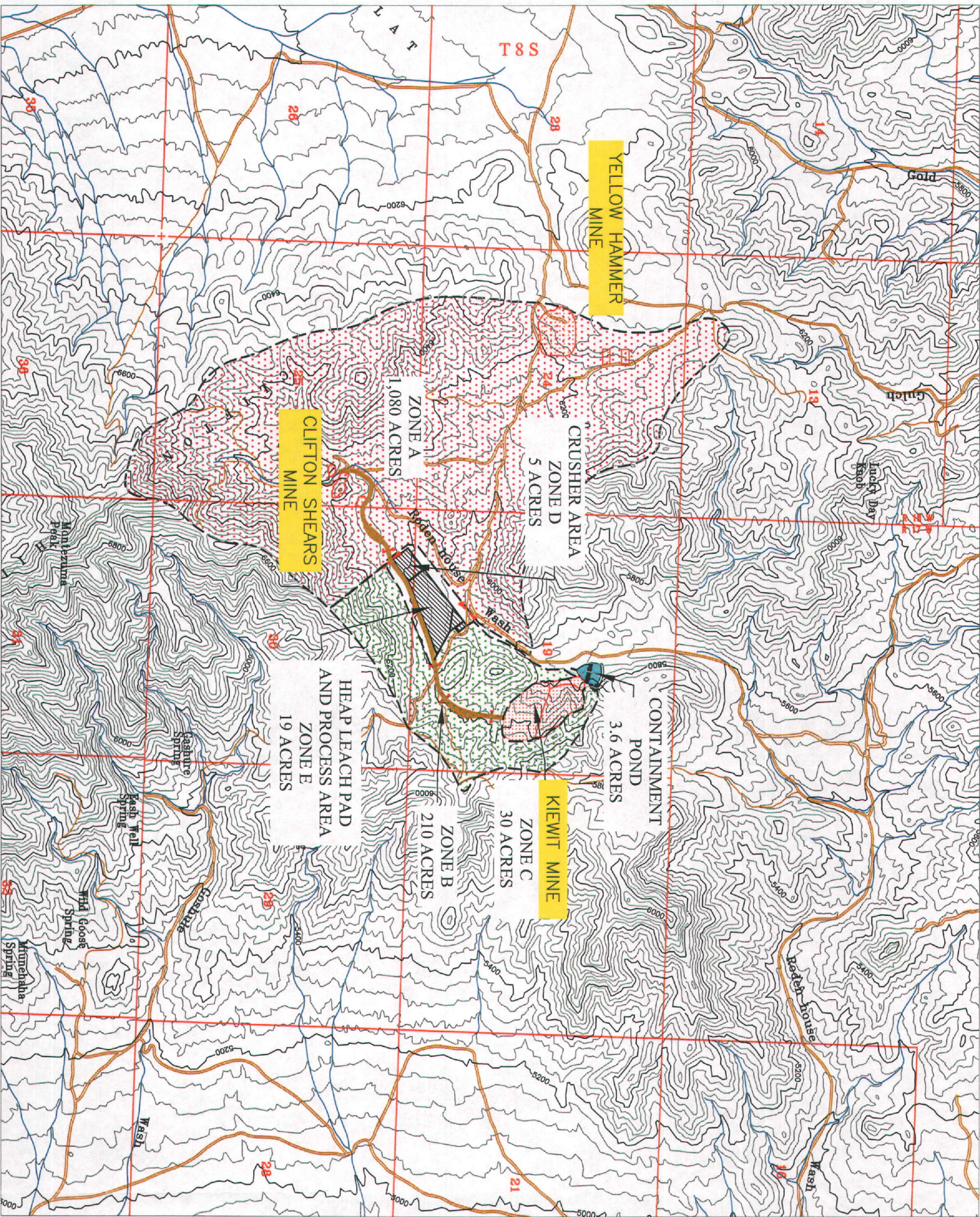
- Background on the components and goals of storm water pollution prevention
- Hands on training in spill prevention and response
- BMP's to be used at the facility
- Education on storm water pollution prevention
- Question and answer session
- Other topics considered pertinent during each session

All new employees will be trained within one week of their start date. Additionally, employees will be required to participate in an annual refresher training course. The training program will be reviewed annually to determine its effectiveness and to make any necessary changes to the program.

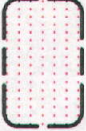




APPENDIX A

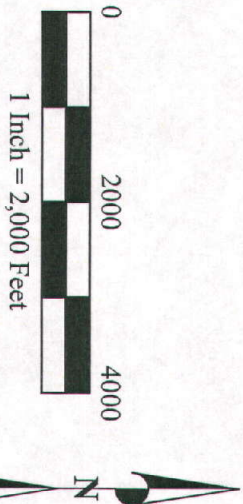
FACILITY CONTACT LIST

1. Stan Kendall – Mine Manager
(435) 234-1285
2. Einor Miller – Mine Clerk
(435) 234-1286
3. Rick Havenstrite – President
1290 Holcomb Avenue
Reno, Nevada 89502
(775) 322-4621
FAX 322-6867
Emergency Phone (775) 848-5193
rickh@odcnv.com



LEGEND

-  STORM WATER COLLECTION ZONE A
-  STORM WATER COLLECTION ZONE B
-  MINE AREA
-  HEAP LEACH PAD AND PROCESS FACILITIES
-  CONTAINMENT POND



DESERT HAWK GOLD CORP
KIEWIT PROJECT
SMP - 2
PRE MINE TOPOGRAPHY
TOOELE CO, UTAH

Date: 01/2010 kiewit fig 2

NORTH AMERICAN EXPLORATION
447 N 300 W, Suite 3
Kaysville, UT 84037
801-544-3421



R 18 W
R 17 W



Y CULVERT



HAUL ROAD

RUNOFF DIVERSION



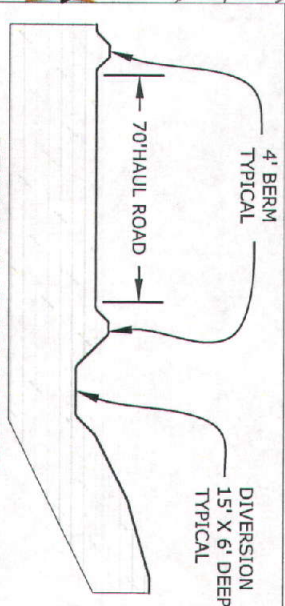
**STORMWATER
COLLECTION AREA**

MINE



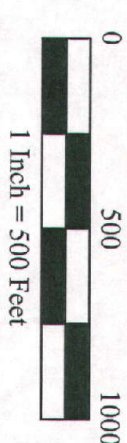
MINE FACILITIES

CONTAINMENT POND



DIVERSION CROSS SECTION

A-A'
NOT TO SCALE



1 Inch = 500 Feet

DESERT HAWK GOLD CORP

KIEWIT PROJECT

SMP-3

STORM WATER MANAGEMENT PLAN

TOOELE CO, UTAH

Date: 01/2010	kiewit fig 3
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NORTH AMERICAN EXPLORATION

447 N 300 W, Suite 3

Kaysville, UT 84037

801-544-3421





POINT PRECIPITATION FREQUENCY ESTIMATES FROM NOAA ATLAS 14



WENDOVER WSO AIRPORT, UTAH (42-9382) 40.7206 N 114.0356 W 4229 feet

from "Precipitation-Frequency Atlas of the United States" NOAA Atlas 14, Volume 1, Version 4

G.M. Bonnin, D. Martin, B. Lin, T. Parzybok, M. Yekta, and D. Riley

NOAA, National Weather Service, Silver Spring, Maryland, 2006

Extracted: Tue Mar 3 2009

Confidence Limits	Seasonality	Location Maps	Other Info.	GIS data	Maps	Docs	Return to State Map
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Precipitation Frequency Estimates (inches)																		
ARI* (years)	5 min	10 min	15 min	30 min	60 min	120 min	3 hr	6 hr	12 hr	24 hr	48 hr	4 day	7 day	10 day	20 day	30 day	45 day	60 day
1	0.08	0.12	0.15	0.20	0.24	0.33	0.37	0.46	0.54	0.63	0.72	0.82	0.90	0.97	1.19	1.36	1.57	1.80
2	0.10	0.15	0.19	0.26	0.32	0.42	0.47	0.57	0.68	0.80	0.90	1.03	1.13	1.22	1.50	1.72	1.97	2.26
5	0.14	0.22	0.27	0.36	0.45	0.56	0.60	0.73	0.87	1.01	1.14	1.29	1.42	1.55	1.90	2.15	2.45	2.80
10	0.18	0.27	0.33	0.45	0.56	0.69	0.73	0.86	1.02	1.19	1.32	1.50	1.65	1.79	2.21	2.48	2.81	3.21
25	0.24	0.36	0.45	0.60	0.75	0.88	0.92	1.06	1.24	1.43	1.58	1.78	1.96	2.13	2.61	2.90	3.26	3.73
50	0.29	0.44	0.55	0.74	0.91	1.06	1.08	1.22	1.42	1.62	1.79	2.01	2.19	2.40	2.92	3.22	3.60	4.12
100	0.36	0.54	0.67	0.90	1.12	1.25	1.27	1.41	1.60	1.82	2.00	2.25	2.44	2.66	3.23	3.54	3.92	4.50
200	0.43	0.65	0.81	1.09	1.35	1.49	1.50	1.60	1.79	2.02	2.22	2.49	2.69	2.93	3.54	3.84	4.22	4.86
500	0.55	0.84	1.04	1.40	1.73	1.85	1.86	1.89	2.07	2.30	2.52	2.81	3.03	3.30	3.95	4.24	4.61	5.32
1000	0.66	1.00	1.24	1.67	2.07	2.17	2.18	2.21	2.29	2.53	2.76	3.07	3.28	3.58	4.25	4.53	4.88	5.64

* These precipitation frequency estimates are based on a partial duration series. ARI is the Average Recurrence Interval.

Please refer to [NOAA Atlas 14 Document](#) for more information. NOTE: Formatting forces estimates near zero to appear as zero.

* Upper bound of the 90% confidence interval Precipitation Frequency Estimates (inches)																		
ARI** (years)	5 min	10 min	15 min	30 min	60 min	120 min	3 hr	6 hr	12 hr	24 hr	48 hr	4 day	7 day	10 day	20 day	30 day	45 day	60 day
1	0.09	0.14	0.18	0.24	0.29	0.39	0.43	0.53	0.62	0.69	0.79	0.90	0.98	1.06	1.30	1.49	1.70	1.94
2	0.12	0.18	0.22	0.30	0.37	0.50	0.55	0.66	0.78	0.86	0.98	1.12	1.23	1.33	1.64	1.86	2.13	2.44
5	0.17	0.26	0.32	0.43	0.53	0.66	0.70	0.83	0.99	1.09	1.25	1.40	1.54	1.69	2.07	2.33	2.65	3.01
10	0.21	0.32	0.39	0.53	0.65	0.81	0.84	0.98	1.16	1.28	1.44	1.63	1.79	1.95	2.41	2.68	3.03	3.45
25	0.28	0.43	0.53	0.71	0.88	1.03	1.07	1.21	1.40	1.54	1.73	1.94	2.13	2.33	2.85	3.14	3.52	4.00
50	0.34	0.52	0.64	0.86	1.07	1.25	1.26	1.39	1.61	1.74	1.95	2.19	2.38	2.62	3.19	3.49	3.88	4.41
100	0.42	0.64	0.79	1.07	1.32	1.49	1.50	1.61	1.82	1.96	2.18	2.46	2.65	2.90	3.53	3.84	4.22	4.82
200	0.51	0.77	0.96	1.29	1.60	1.77	1.78	1.84	2.05	2.19	2.42	2.73	2.93	3.20	3.86	4.18	4.55	5.20
500	0.66	1.01	1.25	1.68	2.08	2.22	2.24	2.26	2.39	2.49	2.75	3.09	3.29	3.60	4.32	4.63	4.97	5.70
1000	0.80	1.22	1.51	2.03	2.51	2.65	2.67	2.69	2.72	2.74	3.02	3.38	3.58	3.92	4.65	4.96	5.26	6.05

* The upper bound of the confidence interval at 90% confidence level is the value which 5% of the simulated quantile values for a given frequency are greater than.

** These precipitation frequency estimates are based on a partial duration series. ARI is the Average Recurrence Interval.

Please refer to [NOAA Atlas 14 Document](#) for more information. NOTE: Formatting prevents estimates near zero to appear as zero.

* Lower bound of the 90% confidence interval Precipitation Frequency Estimates (inches)																		
ARI** (years)	5 min	10 min	15 min	30 min	60 min	120 min	3 hr	6 hr	12 hr	24 hr	48 hr	4 day	7 day	10 day	20 day	30 day	45 day	60 day
1	0.07	0.10	0.13	0.17	0.21	0.29	0.32	0.40	0.47	0.58	0.66	0.75	0.83	0.89	1.09	1.24	1.45	1.66
2	0.09	0.13	0.16	0.22	0.27	0.37	0.40	0.49	0.59	0.73	0.82	0.94	1.04	1.12	1.38	1.57	1.82	2.09
5	0.12	0.19	0.23	0.31	0.39	0.48	0.52	0.63	0.75	0.93	1.04	1.18	1.30	1.42	1.74	1.96	2.27	2.59
10	0.15	0.23	0.28	0.38	0.47	0.58	0.63	0.74	0.89	1.08	1.21	1.36	1.51	1.64	2.02	2.26	2.60	2.96
25	0.20	0.30	0.37	0.50	0.62	0.73	0.78	0.91	1.06	1.30	1.44	1.62	1.78	1.95	2.38	2.64	3.01	3.44
50	0.23	0.36	0.44	0.60	0.74	0.86	0.90	1.03	1.20	1.47	1.61	1.82	1.99	2.18	2.65	2.92	3.31	3.78
100	0.28	0.43	0.53	0.72	0.89	1.00	1.03	1.17	1.34	1.64	1.79	2.02	2.20	2.41	2.92	3.20	3.60	4.12
200	0.33	0.50	0.62	0.83	1.03	1.16	1.20	1.32	1.49	1.81	1.98	2.23	2.41	2.63	3.18	3.46	3.86	4.44
500	0.40	0.61	0.76	1.03	1.27	1.39	1.44	1.52	1.68	2.05	2.23	2.49	2.69	2.94	3.53	3.80	4.20	4.83
1000	0.47	0.71	0.88	1.18	1.47	1.57	1.63	1.73	1.84	2.23	2.42	2.70	2.90	3.17	3.77	4.05	4.43	5.11

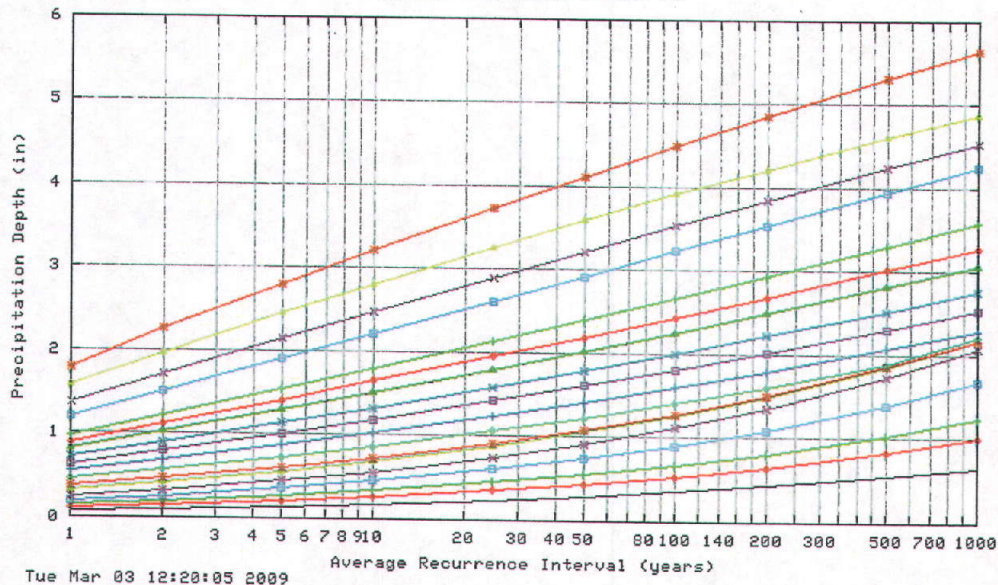
* The lower bound of the confidence interval at 90% confidence level is the value which 5% of the simulated quantile values for a given frequency are less than.

** These precipitation frequency estimates are based on a partial duration maxima series. ARI is the Average Recurrence Interval.

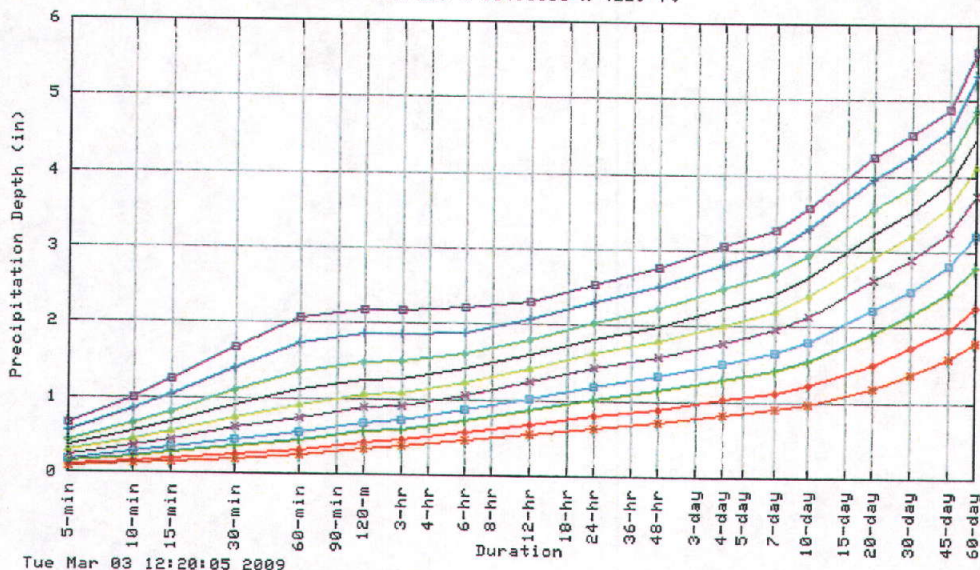
Please refer to [NOAA Atlas 14 Document](#) for more information. NOTE: Formatting prevents estimates near zero to appear as zero.

Text version of tables

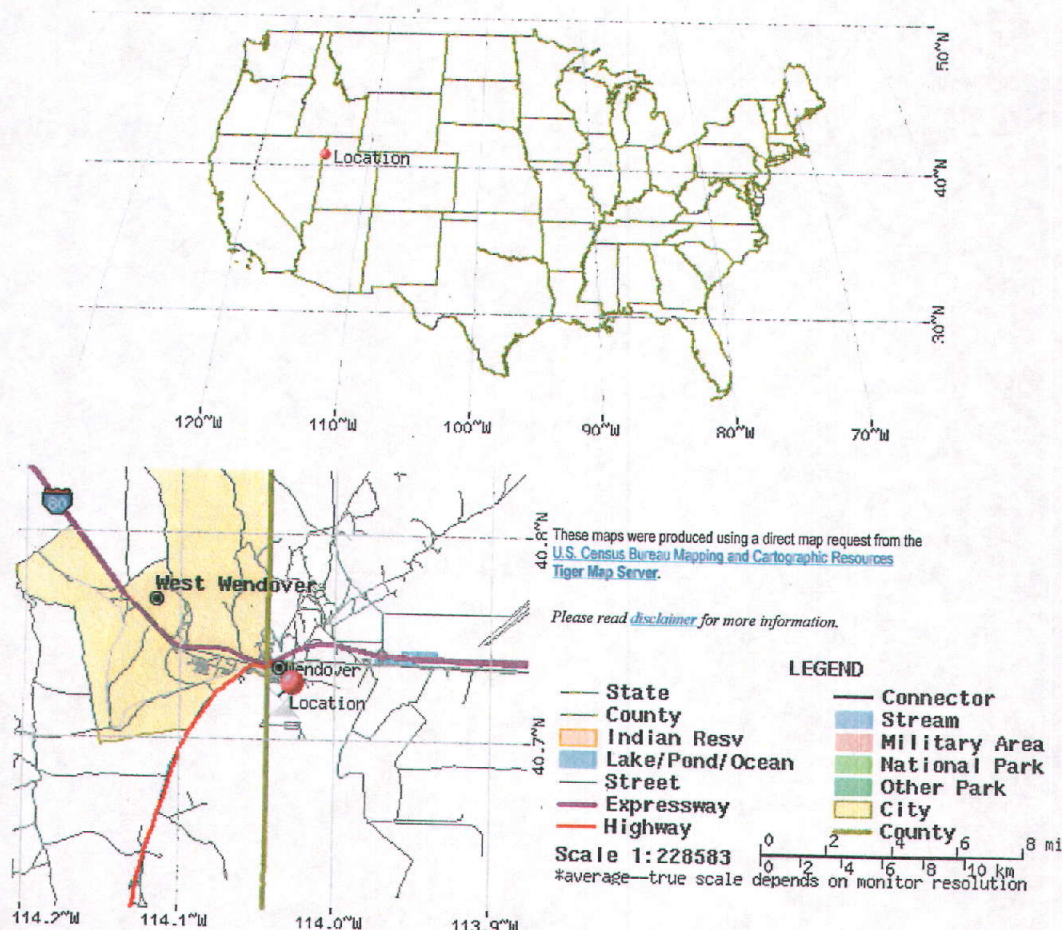
Partial duration based Point Precipitation Frequency Estimates - Version: 4
40.7206 N 114.0356 W 4229 ft



Partial duration based Point Precipitation Frequency Estimates - Version: 4
40.7206 N 114.0356 W 4229 ft



Maps -



Other Maps/Photographs -

[View USGS digital orthophoto quadrangle \(DOQ\)](#) covering this location from TerraServer; [USGS Aerial Photograph](#) may also be available from this site. A DOQ is a computer-generated image of an aerial photograph in which image displacement caused by terrain relief and camera tilts has been removed. It combines the image characteristics of a photograph with the geometric qualities of a map. Visit the [USGS](#) for more information.

Watershed/Stream Flow Information -

[Find the Watershed](#) for this location using the U.S. Environmental Protection Agency's site.

Climate Data Sources -

Precipitation frequency results are based on data from a variety of sources, but largely NCDC. The following links provide general information about observing sites in the area, regardless of if their data was used in this study. For detailed information about the stations used in this study, please refer to [NOAA Atlas 14 Document](#).

Using the [National Climatic Data Center's \(NCDC\)](#) station search engine, locate other climate stations within:

...OR... of this location (40.7206/-114.0356). Digital ASCII data can be obtained directly from [NCDC](#).

Find [Natural Resources Conservation Service \(NRCS\)](#) SNOTEL (SNOWpack TELemetry) stations by visiting the [Western Regional Climate Center's state-specific SNOTEL station maps](#).

Hydrometeorological Design Studies Center
DOC/NOAA/National Weather Service
1325 East-West Highway
Silver Spring, MD 20910

(301) 713-1669

Questions?: HDSC.Questions@noaa.gov

[Disclaimer](#)

APPENDIX C
INSPECTION REPORT FORMS

APPENDIX D
COMPLETED INSPECTION FORMS

APPENDIX E
EMPLOYEE TRAINING RECORDS

APPENDIX XII

SURETY CALCULATIONS

DESERET HAWK GOLD CORPORATION

Notice of Intention to Conduct Large
Mining Operations

KIEWIT PROJECT

Tooele County, Utah

January 2010

RECLAMATION SURETY ESTIMATE - D8R

Desert Hawk Gold Corporation

Mine Name

DOGM file Number

Prepared by Doug Jensen

Reclamation Details

*

last revision

3/26/2009

file: MINE-BOND.xls

page "estimate D8"

Tooele County

PASSWORD

doug

Note: actual unit costs may vary according to site conditions

last unit cost update

10/25/06

-Amount of disturbed area which will receive reclamation treatments =

71.5 acres

-Estimated total disturbed area for this mine =

96.5 acres

Activity	Quantity	Units	\$/unit	\$	Note
Safety gates, signs, etc (mtls & installation)	1	sum	600	600	(1)
Demolition of buildings & facilities	0	CF	0.33	0	(2)
Debris & equipment removal - trucking	10	trips	63.00	630	(3)
Debris & equipment removal - dump fees	0	ton	110.00	0	(4)
Debris & equipment removal - loading trucks w/FE loader	16	hour	245.50	3928	(5)
Demolition & debris removal - general labor	16	hour	49.00	784	(6)
Regrading facilities areas - D8R (2ft depth)	0	acre	1463.00	0	(7)
Regrading - D8R dozer COST PER HOUR	4	hour	233.00	932	(7h)
Regrading waste dump slopes - Kiewit	55000	CY	0.77	42350	
Regrading waste dump slopes - Yellow Hammer	10000	CY	0.77	7700	(8)
Ripping waste dump tops - Yellow Hammer	0.75	acre	361.00	271	(9)
Ripping waste dump tops - Kiewit	11	acre	361.00	3971	
Ripping stockpile & compacted areas - D8R dozer	0	acre	361.00	0	(9)
Ripping pit floors - D8R dozer	2	acre	361.00	722	(9)
Ripping pit access roads - D8R dozer (2ft depth)	0	acre	682.00	0	(9)
Ripping - D8R dozer COST PER HOUR	0	hour	361.00	0	(9h)
Creating safety berms or barriers around highwalls -D8R--All Pits	4350	LF	0.22	957	(10)
Heap Leach Pad Rinse/Closure	1095	days	150.00	164250	
Ripping access roads- D8R dozer	12	acre	361.00	4332	(9)
Regrading access roads - D8R dozer	0	acre	697.18	0	(7)
Sidecast mtl replacement of steep slopes - trackhoe	0	LF	1.26	0	(11)
Sidecast mtl replacement- trackhoe COST PER HOUR	0	hour	378.00	0	(11h)
Surface drainage restoration or construction	7200	LF	0.23	1656	(10)
Sediment pond reclamation	4.5	acre	361.00	1625	
Topsoil replacement - Pad Area	10500	CY	0.77	8085	(8)
Topsoil replacement - Haul Road	4000	CY	0.77	3080	(8)
Topsoil replacement - Kiewit Pit	3700	CY	0.77	2849	(8)
Topsoil replacement - truck only, 2 mi round trip--Pad Area	10500	CY	3.27	34335	(13)
Topsoil replacement - loading trucks - FE loader--Pad Area	10500	CY	0.56	5880	(14)
Topsoil replacement - truck only, 2 mi round trip--Kiewit Pit	3700	CY	3.27	12099	(13)
Topsoil replacement - loading trucks - FE loader--Kiewit Pit	3700	CY	0.56	2072	(14)
Broadcast seeding	72.5	acre	280.00	20300	(00)
General site cleanup & trash removal	30	acre	100.00	3000	(00)
Equipment mobilization	3	equip	3000	9000	(00)
Reclamation supervision -10% of reclamation estimate		Subtotal		335407	
10% Contingency		Subtotal		33541	(15)
Escalate for 5 years at 1.6% per year		Subtotal		368948	
		Subtotal		36895	
		Subtotal		405843	
		Subtotal		33523	
		Total		439366	
Rounded surety amount in year 2011 \$				\$439,400	
Average cost per disturbed acre =				4553	

RECLAMATION SURETY ESTIMATE - D8R		last revision	3/26/2009
Mine Operator		file: MINE-BOND.xls	
mine name		page "estimate D8"	
DOGM file number		County	
Prepared by Utah State Division of Oil, Gas & Mining			
Note		last unit cost update	10/25/06
(1)	DOGM lump sum assumed		
(2)	Means 2009, 02 41 16.13 0100, Building Demolition, mix of types, avg., excluding dump fees		
(3)	Means 2009, 02 41 19.23 5100, bldg demo, rubbish handling, \$0.63/CY per mile for >8CY truck; assumed 100 miles round trip		
(4)	Means 2009, 02 41 19.21 0020, dump charges, typical urban city, tipping fees only, bldg construction mtls		
(5)	Rental Rate Blue Book 2nd Half 2007, Cat 980H, 7.5 CY \$125/hr+\$58.35/hr, & Means 2009 Eqmd \$62.15, loading trucks only = \$245.50		
(6)	Means 2009 Common Building Laborer (Clab), incl. O & P		
(7)	Means 2009 & Blue Book 2nd Half 2007+ 10%, Cat Dozer, mtl 2550 lb/CY, 50 ft push, 2 ft depth		
(7h)	Means 2009 & Blue Book 2nd Half 2007, Cat Dozer - size specified		
(8)	Means 2009 & Blue Book 2nd Half 2007, Cat Dozer, mtl 2550 lb/CY, 100 ft push, 1 ft depth		
(9)	Means 2009 & Blue Book 2nd Half 2007, Cat Dozer, multi shank rippers, speed 1.0 mph		
(9)	Means 2009 & Blue Book 2nd Half 2007, Cat Dozer, multi shank rippers, speed 1.0 mph		
(9)	Means 2009 & Blue Book 2nd Half 2007, Cat Dozer, multi shank rippers, speed 1.0 mph		
(9)	Means 2009 & Blue Book 2nd Half 2007, Cat Dozer, multi shank rippers, speed 0.5 mph		
(9h)	Means 2009 & Blue Book 2nd Half 2007, Cat Dozer, multi shank rippers, speed 1.0 mph		
(10)	Means 2009 & Blue Book 2nd Half 2007, Cat Dozer, mtl 2550 lb/CY, 100 ft push, 1 ft depth		
(9)	Means 2009 & Blue Book 2nd Half 2007, Cat Dozer, multi shank rippers, speed 1.0 mph		
(7)	Means 2009 & Blue Book 2nd Half 2007, Cat Dozer, mtl 2550 lb/CY, 50 ft push, 1 ft depth		
(11)	Means 2009 & Blue Book 2nd Half 2007: Cat 345C L Excavator, 2.5CY bucket, 75% efficiency, 20 ft wide road, used avg 1.0 CY/LF		
(11h)	Means 2009 & Blue Book 2nd Half 2007: Cat 345C L Excavator, 2.5CY bucket		
(10)	Means 2009 & Blue Book 2nd Half 2007: Cat Dozer, size specified, mtl 2550 lb/CY, 50 ft push, used avg vol 0.5CY/LF-berm		
(8)	Means 2009 & Blue Book 2nd Half 2007, Cat Dozer, mtl 2550 lb/CY, 100 ft push, 1 ft depth		
(12)	Means 2009 & Blue Book 2nd Half 2007: Cat 627G P-P, mtl 2550 lb/CY, 2,000 ft haul one-way, grade +/- 4%,		
(12h)	Means 2009 & Blue Book 2nd Half 2007: Cat 627G P-P, mtl 2550 lb/CY, 2,000 ft haul one-way, grade +/- 4%,		
(13)	Means 2009 31 23 23.20 5200: earthwork, hauling excavated or borrow, loose cy, no loading incl., off highway hauler, 22 CY, 2 mile round		
(14)	Means 2009 & Blue Book 2nd Half 2007, Cat 950H FE loader, 3.25 CY bucket		
(14h)	Means 2009 & Blue Book 2nd Half 2007, Cat 950H FE loader, 3.25 CY bucket		
(00)	DOGM general estimate - mulching		
(00)	DOGM general estimate - fertilizing		
(00)	DOGM general estimate - manure \$19/ton delivered, \$16 ton/acre spreading		
(00)	DOGM general estimate - broadcast seeding		
(00)	DOGM general estimate - drill seeding		
(00)	DOGM general estimate - hydroseeding		

APPENDIX XIII

SPILL PREVENTION, CONTAINMENT AND
COUNTERMEASURES PLAN

DESERET HAWK GOLD CORPORATION

Notice of Intention to Conduct Large
Mining Operations

KIEWIT PROJECT

Tooele County, Utah

January 2010

Spill Prevention, Containment and Countermeasures Plan

Desert Hawk Gold Corporation Project
Tooele County, Utah

I) Substances of Concern for Spills

- A) Diesel Fuel
- B) Used Motor oil
- C) Automotive Batteries
- D) Lime
- E) Allum
- F) Sodium Cyanide
- G) Soda Ash
- H) Hazardous Cyanide Leach Material
- I) Chlorine

II) Spill Prevention Measures

- A) All of the Heap Leach Pad, Pond and Process Facilities will be underlain with an 80 mil HDPE liner and surrounded with containment berms so that spilled materials will be contained.
- B) A Material Safety Data Sheet (MSDS) chemicals, oils and other materials used in the project area will be readily available for review to all personnel.
- C) Fuel tanks must have a secondary containment not less than 1.5 times the capacity of the fuel tank.
- D) All Fuels, Oils and Chemicals will be stored in approved containers and volumes will not exceed MSHA and OSHA restrictions.

III) Spill Countermeasures and Cleanup Practices

- A) Immediately alert others in the area and the supervisor. Evacuate the area, if necessary.
- B) If there is a fire or medical attention is needed, contact fire suppression or medical professionals immediately.
- C) If a volatile, flammable material is spilled, immediately warn others in the area, control sources of ignition, and ventilate the area.
- D) Wear personal protective equipment, as appropriate to the hazards. Refer to the Material Safety Data Sheet or other references available for information.
- E) Attend to any persons who may be contaminated. Refer to MSDS sheets for materials and treatment of persons who have been exposed.
- F) If the spill is a MAJOR one, if there has been a release to the environment, or if assistance is needed, contact the Utah Department of Environmental Quality (DEQ).
- G) Ensure that containment berms and membranes are in place and that the spill cannot be released into the environment. Spill socks and absorbents may be used to contain the spill and remove the spilled substance as well as any contaminated materials.

- H) When the spilled materials have been absorbed, use a brush or scoop to place materials in an appropriate container.
- I) Place the spilled materials in an approved container. Complete a hazardous waste tag, identifying the material as Spill Debris involving XYZ Chemical, and affix the sticker to the container or bag. Contact an appropriate supervisor for advice on storage and packaging for disposal.
- J) Place the container in a properly ventilated area until the next chemical waste pick-up.
- K) Replenish spill control materials.